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TRANSFORMATIVE LEARNING IN COLLEGE STUDENTS:
A MIXED METHODS STUDY

By

James Roderick Fullerton

A DISSERTATION

Presented to the Faculty of
The Graduate College at the University of Nebraska
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Major: Human Sciences

Under the Supervision of Professor John DeFrain

Lincoln, Nebraska

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TRANSFORMATIVE LEARNING IN COLLEGE STUDENTS:
A MIXED METHODS STUDY

James Roderick Fullerton, Ph.D.

University of Nebraska, 2010

Advisor: John D. DeFrain

Learning Reconsidered (Keeling, 2004) and *Learning Reconsidered 2* (Keeling, 2006) called upon institutions of higher education to measure learning outcomes, and to facilitate transformative learning in college students. *Learning Reconsidered 2* defined transformative learning with Mezirow's description of the constructivist process of "learning to think like an adult" (Mezirow & Associates, 2000, p. 3). This research study attempts to *heed the call* by measuring and distinguishing between informative (received) learning outcomes and transformative (constructed) learning outcomes, and uses mixed methods to compare self-reported changes in both of these learning domains. The participants in this study were a group of college students engaged in a semester-long leadership development program at a mid-sized western regional university. A variety of techniques were applied to help facilitate their leadership development, including critically reflective learning strategies (which can be catalysts for transformative learning). Quantitative self-assessments were the *Developmental Advising Inventory* (a commercially available instrument which measures personal development in nine dimensions) and a *Leadership Knowledge Survey* (which lists 18 dimensions of leadership that were addressed during the semester-long program). As a constructivist phenomenon, transformative learning requires qualitative methods of measurement,

which were based on self-reflective responses to interview questions by each subject at the end of the semester. Participant responses about their lived experiences were organized into structural themes. The relevant data were placed into an evidence checklist that was developed for this study, which identifies conditional thresholds that are necessary for transformative learning to occur (based on Mezirow & Associates, 2000). Drawing from interview data analysis, participants were ultimately categorized according to their indicated stage of transformative learning. The findings revealed that age was a strong correlating factor for transformative learning to occur, and that informative and transformative learning can and do occur independently of each other. The study also concluded that transformative learning is not a guaranteed outcome, but only a potential opportunity for “learning to think like an adult.”

DEDICATION

. . . the real problems of life have to be grappled with. To repeat the quotation from Thomas Aquinas, “The slenderest knowledge that may be obtained of the highest things is more desirable than the most certain knowledge obtained of lesser things,” and “grappling” with the help of slender knowledge is the real stuff of life.

--E.F. Schumacher, from *A Guide for the Perplexed*, 1977, p. 134

Dedicated to the spirit of adventure
and the lifelong pursuit
of our highest potential as human beings.

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Chapter I

Introduction

Autobiographical Interest

The facilitation of human development has been of particular interest to me throughout my scholarly and career experiences in higher education. My doctoral program provided scholarly focus on college student development, and also how adults can continue to grow and develop throughout their life span. My career experiences, including serving as the director of an outdoor recreation program at a large midwestern university, the University of Nebraska-Lincoln (UNL), and as the director of a student leadership development program at a mid-sized regional university in the western United States, Idaho State University (ISU) in Pocatello, have provided many opportunities to challenge students to develop their values, knowledge, skills, and theories in use. This research project attempts to address and integrate these areas of interest.

Early on in my professional career and graduate studies at the University of Nebraska-Lincoln (UNL), I had the opportunity to participate in a collaborative research project (by graduate students who were staff in Campus Recreation and the Student Union) that extended William Perry's work on intellectual and ethical development. The results of that study, and a follow-up study, were published in various forms in several Student Affairs publications under such titles as *Why Johnny Can't Cooperate: Cognitive Development and the Concept of Adequateness* (Fullerton & Wells, 1992) and *Why Johnny Can't Cooperate: How Developmental Levels Affect Participation* (Fullerton & Wetzel, 1993). This experience, perhaps more than any other, galvanized my scholarly interest in human development and developmental theory. This further manifested itself

when I later co-developed and co-taught a course in group facilitation at the University of Nebraska (AGLEC 331A) which included an emphasis on student developmental theory and application.

My doctoral program at the University of Nebraska included coursework in such topic areas as *College Student Development*, *Individual and Social Transformation*, and *Critical Thinking*. My doctoral faculty provided me with the opportunity to serve as an editorial assistant for the *Adult Education Quarterly* while it was based at UNL. In this capacity I was able to preview cutting edge research and thought (including some by Jack Mezirow, one of the primary proponents of perspective transformation) even before it had seen the light of published day. I also had the opportunity to participate in a summer workshop on *Transformational Learning* which featured an appearance and half day presentation at the University of Nebraska-Lincoln by Robert Kegan, the author of several of the most relevant works cited within this dissertation. The combination of these scholarly experiences strongly influenced my interest in transformational theory.

In preparation for launching into my doctoral dissertation, in the spring semester of 2006 I gave a presentation titled *Off the Map: A Phenomenological Study of Disorientation in the Process of Perspective Transformation* at a professional development colloquium on scholarship at Idaho State University, where I now serve as interim Assistant Dean of Student Affairs. This helped me to critically analyze, and publicly present, a watershed step in the process of perspective transformation.

Then, in the fall semester of 2006, I attended two conferences which helped me to better define and formulate the theme of this dissertation. The first event was the Council for the Advancement of Standards in Higher Education (CAS) National Symposium, held

in Washington, D.C. Since I had recently been charged to assist with the coordination of assessment efforts within the division of Student Affairs at my university, I attended the CAS Symposium to gain a broader and deeper perspective on higher education program assessment based on CAS publications (see Appendices A, B, and C).

Near the registration table before the CAS Symposium began, I was fortunate to meet Dr. Susan Komives from the University of Maryland. Dr. Komives is one of the foremost authorities and published authors on college student development and leadership in the United States. She has co-authored seminal works such as *Student Services: A Handbook for the Profession* (Komives, Woodward, & Assoc., 2003) and *Exploring Leadership for College Students Who Want to Make a Difference* (Komives, Lucas, & McMahon, 2007). She was also involved with the development of the CAS professional performance standards within higher education.

After introducing myself, Dr. Komives and I sat down together near the registration table. In an attempt to make professional connections, I mentioned two mutual colleagues that I knew we shared, Kathy Shellogg and Laura Osteen. Kathy Shellogg of Nebraska Wesleyan University was involved with Dr. Komives in the development of *A Social Change Model of Leadership Development* (Astin & Astin, 1996). Ms. Shellogg was formerly a colleague of mine at UNL, and I performed some consulting work for her when she was at St. Norbert's College in Wisconsin, and later when she was at Nebraska Wesleyan University. The other mutual acquaintance we had was Dr. Laura Osteen of Florida State University, who was a co-researcher with Dr. Komives in the development of a major grounded theory research project resulting in the *Leadership Identity Development Model* (Osteen, 2005). At a conference in 2005, I

attended two sessions presented by Dr. Osteen, one of which shared the preliminary findings of the *LID* model.

I told Dr. Komives that I was familiar with both of these models (*Social Change* and *LID*), and was integrating them into our student leadership development program delivery at my university. This established some preliminary connections between us. Our discussion was then cut short by the opening of the Symposium.

The CAS Symposium keynote address was made by Dr. Richard Keeling, who was the editor of *Learning Reconsidered: A Campus-Wide Focus on the Student Experience* (2004) and *Learning Reconsidered 2: A Practical Guide to Implementing a Campus-Wide Focus on the Student Experience* (2006), which I learned were documents of broad scope and significance to Student Affairs practitioners. In his address he talked about how these documents called for transformative learning in the development of college students as citizens. He specifically cited Mezirow (Mezirow & Associates, 2000) and Kegan (2000), who were, as I mentioned before, two of the central researchers and scholars I had studied within my doctoral program. I then realized that transformative learning, which had previously been an emergent theory, had entered the national mainstream in higher education.

Two days later, the closing speech for the CAS Symposium was by my new acquaintance, Dr. Komives. I subsequently learned that she was a significant contributor to *Learning Reconsidered* (Keeling, 2004) and *Learning Reconsidered 2* (Keeling, 2006) and co-authored the chapter on *Developing Learning Outcomes* in *LR2* (Komives & Schoper., 2006). In her closing speech, she emphasized the critical importance of

assessment and the intentional pursuit of student learning outcomes. She also called for further research and applications in these areas.

For my doctoral dissertation I had long been considering research on some aspect of perspective transformation. I had particular interest in the disequilibrium stage that typically begins the process, and how this state of disorientation is a watershed for individuals to advance or retreat in the learning and growth process. Hearing Dr. Keeling's call for transformative learning, coupled with meeting Dr. Komives and beginning to make connections with her about college student learning, development, and assessment, helped to focus my dissertation topic into the project that you now have before you. These multiple calls to action (through conferences, publications, and personal contacts) helped me to conceptualize the pragmatic application of transformative learning processes to college student learning outcomes in perspective transformation.

The second event that I attended in the fall of 2006 was just a few weeks after the CAS Symposium, when I participated in the second ever Leadership Educators Institute, which was held at Arizona State University. Again, by coincidence, I met Dr. Komives at the registration table. I asked if she would be interested in hearing my newly hatched ideas for a doctoral dissertation, and she graciously consented. We talked about my ideas over lunch, and she told me more about her research and made some recommendations for how I could consider conducting mine.

Dr. Komives was especially excited on that day because the second edition of her book *Exploring Leadership for College Students Who Want To Make a Difference* (Komives et al., 2007) had just come out that week, which included her new research on the LID model.. I was especially excited on that day because the curriculum council at

my institution was to consider my proposal for a 21-credit interdisciplinary minor in Leadership Studies that very afternoon. (Later that day I received a phone call from a faculty colleague letting me know that the proposal had been approved.) So, our lunch conversation on that day seemed exceptionally charged with excitement and potential. The nexus of these high water marks in our careers seemed to me to heighten the intensity and significance of our discussion. This helped to crystallize my thinking, and further galvanized my commitment to this research project.

Over the course of our conversation, it became evident that Dr. Komives possessed a broad and deep understanding of leadership development and student learning outcomes, but was largely unfamiliar with the research on transformative learning and the concept of perspective transformation. This helped me to realize that my fledgling research project could help to cross over between these major fields of knowledge, and contribute to the facilitation of developing student learning outcomes in perspective transformation and maturation within the field of higher education.

In October 2008, I helped to coordinate and host a two-day faculty development workshop at our university called *From Teaching to Learning* that featured Dr. Jane Fried from Central Connecticut State University as the facilitator. Dr. Fried was the author of the chapter on *Rethinking Learning in Learning Reconsidered 2*, wherein she referenced transformative learning, and research by Mezirow and Kegan. During her visit, we discussed this dissertation and she expressed her enthusiastic interest and support for this research on perspective transformation and transformative learning.

Through my current position as Assistant Dean for Student Affairs, I continue to serve as the Leadership Program director, help coordinate assessment within our division,

and take the lead as the institution's student conduct administrator to enforce our student code of conduct. As the director of my university's Leadership Program, I was able to conduct this dissertation research with a new group of aspiring student leaders who participated in a semester-long Leadership Academy.

If the purpose of a doctoral dissertation is to:

- Demonstrate competency in conducting research,
- Explore cutting edge research within fields of interest, and
- Contribute to the creation of knowledge in the world.

I expect that this work will reach the thresholds for each of these criteria.

Purpose of the Study

The purpose of this study is to explore how (if at all) transformative learning fits into the experiences of college students who are intentionally exposed to transformative learning strategies while engaged in a non-credit leadership development program (which was offered to interested participants by application only), and to use mixed research methods in an attempt to measure them. This is an early effort to *heed the call* for the transformative education of college students, as made in *Learning Reconsidered* (Keeling, 2004) and *Learning Reconsidered 2* (Keeling, 2006). This study will investigate ways for the complexities of transformative learning to be integrated into the practicalities of college student learning and development.

Research Questions

In this research project, the grand tour question is: "How does transformative learning fit into the experience of college students who are engaged in a semester-long leadership academy at a mid-sized western regional university?" King (2005) greatly

influenced this grand tour question. She emphasizes the importance of personal context and meaning-making in the process of transformative learning as she asks “How does transformative learning fit into the experience of adults?” (p. 5).

The following sub-questions are also investigated in this study:

1. Quantitative measures: Is there a relationship between *developmental self-assessment* quantitative measures (within the nine dimensions of the *Developmental Advising Inventory*, and 18 topic areas within the *Leadership Knowledge Survey*) among and between participants in this study?
2. Qualitative measures: How do the research participants describe their *lived experiences* of key aspects of transformative learning and perspective transformation?
3. Qualitative measures: Were *conditional thresholds* for transformative learning reached in different ways for different participants in this study?
4. Mixed method measures: Can we come to a better understanding of opportunities for student transformative learning and perspective transformation by analyzing their levels of developmental self-assessment, lived experiences, and conditional thresholds?

Definition of Terms

Mixed Methods—Creswell and Plano Clark (2007) defines mixed methods research in this way: “Mixed methods research involves both collecting and analyzing quantitative and qualitative data” (p. 6). While these two methods have different worldviews, assumptions, and methodologies, Creswell and Plano Clark states that the need exists for both approaches in some areas of study. “The combination of qualitative

and quantitative data provides a more complete picture by noting trends and generalizations as well as in-depth knowledge of participants' perspectives" (p. 33).

Perspective Transformation—Perspective transformation is a term that was coined by Mezirow in 1975 to describe “the central process of adult development” and the change toward “thinking like an adult” through a shift toward “a more inclusive, differentiated, permeable, and integrated perspective” (1991a, p. 155). Later, Mezirow would simply describe the process as “learning to think like an adult” (2000, p. 3).

Essentially, perspective transformation describes a “change in consciousness” (Merriam & Caffarella, 1991, p. 259) and the maturation process of becoming an adult. Perspective transformation is the intended outcome of transformative learning.

Transformative Learning—Mezirow (2000) describes transformative learning in this way:

Transformative learning refers to the process by which we transform our taken-for-granted frames of reference (meaning perspectives, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action. (pp. 7-8)

Kegan contributes by stating, “Informative learning changes what we know; transformative learning changes how we know” (Kegan, 2000, p. 50).

Delimitations and Limitations

The delimitations (narrowing the scope) of this study are that the concepts of transformative learning were applied to one small group of students on one college campus, who were participating in a credit-optional self-selected program (supported by a faculty/staff nomination), that was designed to provide leadership experiences to help improve their leadership abilities. The credit-optional, self-selected aspect of this

program is significant, because it is consistent with the self-directed nature of adult education, as well as being consistent with the call for collaborative efforts between the academic and non-academic departments within a university to provide transformative learning experiences for students. While a small sample, this group is of comparable size and is typical of the types of leadership development programs being delivered at many other universities, and is therefore a useful and relatively generalizable sample.

A limitation of this study is that the fundamental concept of perspective transformation was initially developed within the framework of adult education, which generally applies to adults over the age of 25. Recent brain research using MRI technology (Sowell, Thompson, Tessner, & Toga, 2001) has found that “the time at which the brain reaches maturity may be . . . between the early 20s and up to the age of 30” (Blakemore & Choudhury, 2006, p. 300) which may provide a biological explanation for why the age 25 was identified years ago in theoretical literature as the benchmark threshold for a full transition into adult development. Other research, conducted by psychologists, has found that perspective transformation “occurs between [the ages of] 35 and 55 years, and its duration may take between five and twenty years” (Labouvie-Vief, 1984, p. 179).

Within this study, the transformative learning process is intentionally assumed and applied to undergraduate college students, many of whom were of *traditional* college ages of 18-22. It could be purported that student leaders may be somewhat more developmentally advanced in maturity, due to their involvement in taking responsibility and critically reflecting within leadership roles. But, regardless of the ages of the population being studied, since Dr. Richard Keeling and the authors of *Learning*

Reconsidered (Keeling, 2004) and *Learning Reconsidered 2* (Keeling, 2006) call for the application of transformative learning concepts to college students, that is what this study attempts to do, and to provide measurements for this learning.

It is a further limitation that since the main part of this study involves qualitative research, wherein open-ended responses by participants were coded and correlated in an attempt to identify structural invariants, “the findings could be subject to other interpretation” (Kunes, 1991). In other words, while every effort was made to maintain neutrality (using the phenomenological technique of *epoche* or suspending judgment), the bias of this or any other researcher could impact the interpretation of the results.

It should also be noted that quantitative self-assessment tools such as the *Leadership Knowledge Survey* and the *Developmental Advising Inventory* may only represent self-assessments of self-confidence and awareness, and not actual competence. A more behavior-based assessment would likely do a better job of assessing actual knowledge in terms of application.

Significance of the Study

The significance of this study is threefold. First, it describes the deliberate process of applying transformative learning techniques toward intentional college student learning and development outcomes (as advocated in *Learning Reconsidered* and *Learning Reconsidered 2*) and provides measurable evidence of these impacts. This is a deliberate attempt to respond to the demands of the *LR* and *LR2* documents, which are arguably the most important guides for the actions of Student Affairs professionals today.

Second, this study contributes to the understanding of practical techniques for the intentional facilitation of student learning and development outcomes for transformative

learning within higher education. Third, this study will also help to integrate multiple fields of knowledge, which will provide cross-referencing for future scholarly searches in the subjects of transformative learning and the assessment of college student learning and development outcomes.

Chapter II

Literature Review

Human Development

Striving to develop and realize our potential as human beings is an essential challenge of the human experience. Whether framed within a *bottom up* evolutionary process of cognitive insights and emancipation, or a *top down* conception of epiphanies and enlightenment, history is rife with examples of people struggling to reach toward their potential.

Joseph Campbell (1949) describes a universal human theme throughout history as the mythological adventure of the hero, or the *monomyth*. In it,

A hero ventures forth from the world of common day into a region of supernatural wonder: fabulous forces are there encountered and a decisive victory is won: the hero comes back from this mysterious adventure with the power to bestow boons on his fellow man. (p. 30)

This epic monomyth is interpreted in modern day terms as an essential part of every person's journey. As Campbell describes, each individual may choose to *heed the call to adventure* or *refuse the call*.

Daloz (1999) elaborates on the process of the monomyth:

the task facing both sexes is to reframe and understand in a radically new way the meaning of the world they once knew. This does not mean that the old world has been abandoned; rather, it has been incorporated into a broader awareness of its place. It is *seen* in a new way. The journey does not take away our old experiences, as we often fear before we embark. It simply gives them new meaning. This is the significance of the paradoxical Zen saying:

Before practice, there is the mountain.

During practice, there is no mountain.

After practice, there is the mountain. (p. 27)

Daloz continues:

Nothing is different, yet all is transformed. It is *seen* differently. In this change of perspective, in the transformation of meaning lies the meaning of transformation (Mezirow, 1978, 1991; Mezirow and Associates, 1990; Cranton, 1994; Kremer, 1997; Elias, 1997). Our old life is still there, but its meaning has profoundly changed because we have left home, seen it from afar, and been transformed by that vision. You can't go home again — or rather, the home to which you return is not the one you left. (p. 27)

Modern research has often identified an inner/outer dialectic process as an integral component of personal transformation. Fullerton and Wetzel (1993) referred to this critically reflective dialogue as the “central theme and journey for human development” and elaborated upon this fundamental process and its outcomes:

In leisure and recreation literature this is typically referred to as the opportunity to relate and resolve the significance of inner and outer realities (Pieper, 1952). This dialectic process was practiced by Plato and Socrates, and is at the heart of what has been called individuation by Jung (1933), adaptation and decentration by Piaget (1936, 1937), monomyth by Campbell (1949), transcendence by Maslow (1962), the journey of liberation (Schumacher, 1977) and “infinitely enlightened understanding” by Schumacher (Wood, 1984), synthesis by Daloz (1986), integration by Kolb (1981), evolutionary truces by Kegan (1982), and transformation by Mezirow (1990, 1991). This inner/outer dialectic process involves intense analysis of our inner self and outer world. Without this process only superficial development can occur, so it is therefore of vital importance to those interested in human growth and development. (p. 171)

The developmental struggle to become more fully human has been symbolically illustrated through many literary works in history, from Homer's *Odyssey* (circa 850 B.C.) to Dante Alighieri's *The Divine Comedy* (circa 1321) to the modern film *Educating Rita* (Russell, 1983). Through such epic and visionary descriptions it is evident that the process of human development is an inherent and implicit challenge for humanity. It is only our understanding of this developmental process that is gradually becoming more informed and explicit.

Learning Reconsidered and Learning Reconsidered 2

Practitioners within university divisions of Student Affairs are regularly engaged in the practical application of theories about the learning and development of college students. Facilitating transformative learning for college students has come to the forefront within Student Affairs since the publication of *Learning Reconsidered: A Campus-Wide Focus on the Student Experience* (Keeling, 2004) followed closely by *Learning Reconsidered 2: A Practical Guide to Implementing a Campus-Wide Focus on the Student Experience* (Keeling, 2006).

These monographs address the need for constructivist student learning outcomes that are markedly different than traditional *received* learning outcomes (thus, the use of the phrase *Learning Reconsidered* in the titles). These works call for developmental learning that is transformative, urging the learner to become transformed into a more critically thinking, discriminating, mature adult, with the ability to construct meaning.

Published as a collaborative effort with the support of seven professional associations in higher education (all seven of which are affiliated with the Council for the Advancement for Standards in Higher Education, or CAS), *Learning Reconsidered: A Campus-Wide Focus on the Student Experience* (Keeling, 2004) and *Learning Reconsidered 2: A Practical Guide to Implementing a Campus-Wide Focus on the Student Experience* (Keeling, 2006) heralded the changing nature of higher education, and the need for acknowledging and routinely integrating constructivism and meaning-making into learning processes at the college level.

In *Learning Reconsidered (LR)* (Keeling, 2004), learning is defined as “a comprehensive, holistic, transformative activity that integrates academic learning and

student development, processes that have often been considered separate, and even independent of each other” (p. 2, and repeated for emphasis on p. 22). It suggests that “A truly transformative education repeatedly exposes students to multiple opportunities for intentional learning through the formal academic curriculum, student life, collaborative co-curricular programming, community-based, and global experiences” (p. 3). *LR* points out that our historical approach to “educational practice has emphasized information transfer from faculty to student without a great deal of thought to the meaning, pertinence, or application of the information in the context of the student’s life” (p. 9).

Learning Reconsidered (Keeling, 2004) elaborates upon the concept of transformative education, which:

places the student’s reflective processes at the core of the learning experience and asks the student to evaluate both new information and the frames of reference through which the information acquires meaning (Mezirow & Associates, 2000). People acquire their frames of reference through the various influences to which they are exposed as they mature . . . Maturation or development occurs as people become more capable of articulating and critiquing personal stories, reframing them and reshaping their lives. (p. 9)

Keeling continues,

Kegan (1994) and Baxter Magolda (1999) describe this process as self-authorship and consider it one of the higher levels of the developmental process, a way of making meaning in which people reflect on their lives, their values and their behavior and consider whether or not previous choices remain useful or productive for them . . . Mezirow (2000, p. 27) describes this process as transformative learning, “liberating ourselves from reified forms of thought that are no longer dependable” (p. 9).

Keeling (2004) elaborates on transformative learning by stating that it “reinforces the root meaning of liberal education itself” and exemplifies “the purpose of educational involvement . . . (as) the evolution of multidimensional identity, including but not limited

to cognitive, affective, behavioral and spiritual development” (p. 9). Kolb’s (1984) model of “experiential and reflective learning” (p. 9) is then identified as a process that addresses this holistic approach, because reflective thought is embedded within the experiential model for learning.

Learning Reconsidered (Keeling, 2004) draws on *Greater Expectations* (Greater Expectations National Panel, 2002) to assert that “To support today’s learning outcomes, the focus of education must shift from information transfer to identity development (transformation)” (p. 9). It further states three key learning outcomes that can come from this:

When we, as educators, expect students to become “*empowered* through the mastery of intellectual and practical skills; *informed* by knowledge about the natural and social worlds and about forms of inquiry basic to these studies; and *responsible* for their personal actions and civic values” (p. xi) we seek identity transformation through reframing belief and value systems. Such an approach to teaching and learning must include the full scope of a student’s life. It cannot be accomplished in the classroom alone. It cannot be accomplished out of the classroom alone, either” (p. 10).

Learning Reconsidered (Keeling, 2004) concludes with this assertion:

learning must be reconsidered — that new research, changing times, and needs of today’s emerging generations of students require that our traditionally distinct categories of academic learning and student development be fused in an integrated, comprehensive vision of learning as a transformative process that is centered in and responsive to the whole student. Every resource on campus should be used to achieve transformative liberal education for all students, and all colleges and universities are accountable for establishing and assessing specific student outcomes that reflect this integrated view of learning” (p. 35).

Learning Reconsidered 2 (Keeling, 2006) was written as a follow-up to aid in the practical implementation of the concepts set forth in *Learning Reconsidered*. *LR2* states that “powerful learning transforms how students view themselves and the world.

Transformative learning increases students' ability to think about the world, themselves, and how they think and learn" (p. 5).

Keeling (2004) calls for a *new map* for learning (p. 10). Transformative learning is identified in *Greater Expectations* (Greater Expectations National Panel, 2002), *Learning Reconsidered* (Keeling, 2004), and *Learning Reconsidered 2* (Keeling, 2006) as the central aspect of learning that is to be reconsidered within higher education. *Learning Reconsidered* (Keeling, 2004) provides a list of *Goals and Outcomes of a Transformative Liberal Education* (see Appendix D).

Emphasis is given throughout *Learning Reconsidered* (Keeling, 2004) to the concepts of transformative education, meaning-making, reflective processes, self-authorship, identity development, and transformative learning. It states:

The idea of transformative learning reinforces the root meaning of liberal education itself — freeing oneself from the constraints of a lack of knowledge and an excess of simplicity. In the transformative educational paradigm, the purpose of educational involvement is the evolution of multidimensional identity, including but not limited to cognitive, affective, behavioral and spiritual development. . . . To support today's learning outcomes, the focus of education must shift from information transfer to identity development (transformation). (p. 9)

Throughout *Learning Reconsidered* (Keeling, 2004) and *Learning Reconsidered 2* (Keeling, 2006), Mezirow (Mezirow & Associates, 2000) and Kegan (2000) are cited as the primary referent sources for transformative learning. Mezirow refers to the transformative learning process as "learning to think like an adult" (2000, p. 3) and "the process of using a prior interpretation to construe a new interpretation of the meaning of one's experience as a guide to future action" (p. 5). Kegan clarifies the concept, saying "Informative learning changes what we know; transformative learning changes how we

know” (2000, p. 50). Their conceptual views on perspective transformation and transformative learning will next be explored in fuller detail.

Perspective Transformation and Transformative Learning

Our ordinary mind always tries to persuade us that we are nothing but acorns and that our greatest happiness will be to become bigger, fatter, shinier acorns; but that is of interest only to pigs. Our faith gives us knowledge of something much better; that we can become oak trees. (Schumacher, 1977, p.135)

This quote by the author of *Small Is Beautiful* (Schumacher, 1973), *A Guide for the Perplexed* (Schumacher, 1977), and *Good Work* (Schumacher, 1979) gives insight into one of the most essential concepts of human development, which is a fundamental shift in adulthood of knowing and being. From acorn to oak tree, from caterpillar to butterfly, this type of incredible transformation is a common and awe-inspiring theme in nature. In human adulthood this is no less of a dramatic shift, although it is an invisible rather than visible process. Mezirow calls it perspective transformation.

Perspective transformation has been a primary focus of adult education for over three decades. Perspective transformation is a term that was coined by Mezirow in 1975 to describe “the central process of adult development” and the change toward “thinking like an adult” through a shift toward “a more inclusive, differentiated, permeable, and integrated perspective” (1991a, p. 155).

Perspective transformation describes the “transition from being passive learners who accept the definitions provided by others to become active learners able to define meanings and gain new perspectives on their own.” (Mezirow, 1991a) This builds on the basic philosophy of Malcolm Knowles (known as the father of adult education and lifelong learning), who advocated for “self-directed learning” (1975). Essentially, it describes the maturation process of becoming an adult, and experiencing a shift in our

frame of reference, perspective, or consciousness. Mezirow declared perspective transformation as “the central process in adult development” (1991a, p. 151) and “the engine of adult development” (1994, p. 228).

In *Bringing Transformative Learning to Life*, King (2005) offers a summary of the significance of this process under the heading *Learning for the Inside*:

In the course of our daily lives, we as adults are constantly engaged in lifelong learning. Today more than ever it seems that the pressure is upon us to grasp new information instantly, process its meaning, and make decisions. The press for new skills development is relentless, and the needed rate of adaptation and coping with change has outpaced the past. In the midst of all this learning, there are times when the changes sink deeply into our understanding and the results become unmistakable. We are changed in substantial ways beyond information, skills, or performance, as the very substance of our being and understanding may be transformed. (p. 8)

Mezirow’s initial formulation of a theory of perspective transformation came from a “national study of (83) women who were returning to college after a hiatus to participate in specialized reentry programs” (Mezirow, 1975). That study suggested that the process of perspective transformation involves 10 stages:

1. a disorienting dilemma;
2. self-examination with feelings of guilt or shame;
3. a critical assessment of epistemic, sociocultural, or psychic assumptions;
4. recognition that one’s discontent and the process of transformation are shared and that others have negotiated a similar change;
5. exploration of options for new roles, relationships, and actions;
6. planning of a course of action;
7. acquisition of knowledge and skills for implementing one’s plans;
8. provisional trying of new roles;

9. building of competence and self-confidence in new roles and relationships;
and
10. a reintegration into one's life on the basis of conditions dictated by one's new perspective.

The “disorienting dilemma” which Mezirow says always begins the process of perspective transformation, has been identified by other researchers as “cognitive dissonance” (Festinger, 1957), “dislocations” (Greene, 1975), and “disequilibrium” (Kegan, 1982). Mezirow explains this concept by declaring that “The transformation of a meaning perspective . . . always involves critical reflection upon the distorted premises sustaining our structure of expectation” (Mezirow, 1991a). This results in disorientation.

Mezirow points out that many of the 10 stages that he initially identified in the process of perspective transformation were later confirmed by research conducted by Morgan (1987), who studied:

thirty displaced homemakers who had become separated or divorced or had suffered the death of a spouse and were involved in a college course designed for them. . . . This group of women often turned to religion for solace after experiencing the guilt and shame of critical self-reflection. However, they ultimately came to rely on themselves as well. (Mezirow, 1991a, p. 169)

Since Mezirow's initial research on perspective transformation, he has described perspective transformation and transformational learning as “a structural reorganization in the way that a person looks at himself and his relationships” (Mezirow, 1978, p. 162), as an examination of “psycho-cultural assumptions” and “emancipatory action” (Mezirow, 1981, p. 6), and as “self-directed learning” (Mezirow, 1985b). He later explained the process as applicable to both instrumental and communicative learning (Mezirow, 1989), which he explored in detail in *Learning as Transformation* (Mezirow &

Associates, 2000). Mezirow (2003) maintained that transformation is a cognitive rational process:

Transformative learning is understood as a uniquely adult form of metacognitive reasoning. Reasoning is the process of advancing and assessing reasons, especially in those that provide arguments supporting beliefs resulting in decisions to act. Beliefs are justified when they are based on good reasons. (p. 58)

“Critical thinking” and “reflecting on experience” are consistently described as the driving force of transformative learning. Merriam and Caffarella (1991) observed that “Reflective thought . . . may even be *the* thought structure to emerge in adulthood” (p. 259). Even earlier, Brookfield observed that, “The concept of double-loop learning as developed by Argyris and Schon (1978) in which employees become critically aware of the norms and assumptions underlying organizational structures, is very close to the notion of critical reflectivity as explored by Mezirow (1985)” (Brookfield, 1986, p. 189).

Transformative learning describes the learning process that leads to perspective transformation in adulthood. As Mezirow asserts, critical reflection and reflecting on assumptions is vital to transforming the learner’s frame of reference.

As noted in *Learning Reconsidered* (Keeling, 2004), Kolb’s model of “experiential and reflective learning” (p. 9) is identified as a useful process to this end, as it integrates reflection within its cyclical process. Kolb’s model of experiential learning is a dialectical one, based on a dynamic interplay of action and reflection (see Appendix E). Within this model, experiential learning “...is conceived as a four-stage cycle. Immediate concrete experience is the basis for observation and reflection” (Kolb, 1981). “Reflective observation” is the key stage for critically examining assumptions about one’s own concrete experience, and is the gateway to perspective transformation.

Kolb (1981) then describes four kinds of learning abilities in the experiential learning cycle:

- Concrete Experience (CE) - Able to involve themselves fully, openly, and without bias in new experiences.
- Reflective Observation (RO) - Able to observe and reflect on these experiences from many perspectives.
- Abstract Conceptualization (AC) - Able to create concepts that integrate their observations into logically sound theories.
- Active Experimentation (AE) - Able to use these theories to make decisions and solve problems.

Kolb (1981) continues:

Most of us develop learning styles that emphasize some learning abilities over others. . . . Some people develop minds that excel at assimilating disparate facts into coherent theories, yet those same people may be incapable of, or uninterested in, deducing hypotheses from those theories. Others are logical geniuses but find it impossible to involve themselves in active experience. . . . A mathematician may emphasize abstract concepts, while a poet may value concrete experience more highly. A manager may be practically concerned with the active application of skills. Each of us develops a unique learning style, which has both strong and weak points.

Kolb (1981) continues by identifying four prevalent types of learning styles:

- Convergers (AC-AE) Convergers' dominant learning abilities are Abstract Conceptualization and Active Experimentation. Their greatest strength lies in the practical application of ideas . . . Persons with this style seem to do best in those situations, like conventional intelligence tests, where there is a single correct answer or solution to a question or problem.
- Divergers (CE-RO) Divergers have the opposite learning strengths from those of the Convergers. They are best at Concrete Experience and Reflective Observation. Their greatest strength lies in imaginative ability. They excel in the ability to view concrete situations from many perspectives and to organize many relationships into a meaningful *gestalt*.
- Assimilators (AC-RO) Assimilators' dominant learning abilities are Abstract Conceptualization and Reflective Observation. Their greatest strength lies in

the ability to create theoretical models. They excel in inductive reasoning, in assimilating disparate observations into an integrated explanation.

- Accommodators (CE-AE) Accommodators have the opposite strength from those of the Assimilators. They are best at Concrete Experience and Active Experimentation. Their greatest strength lies in doing things, in carrying out plans and experiments and becoming involved in new experiences. They tend to be risk-takers more than persons with the other three learning styles.

Kolb (1981) indicates the implications of this experiential-reflective model for higher education: “While ‘the pendulum (often) swings toward specialization’ in higher education, there is little question that integrative development is important for both personal fulfillment and cultural development.” He concludes: “Continuous lifelong learning requires learning how to learn.”

Critical theory remains an integral part of transformation. Kincheloe (2000) states that critical thinking is really “the ability of individuals to disengage themselves from the tacit assumptions of discursive practices and power relations in order to exert more conscious control over their everyday lives” (p. 24). Brookfield (2005) describes Mezirow’s work as emphasizing “criticality in adulthood as the identification and reappraisal of inhibitions acquired in childhood as a result of various traumas” (p. 13). He further elaborates on the role of critical theory by other researchers:

Theorists like Gould (1990) emphasize the process whereby adults come to realize how childhood inhibitions serve to frustrate them from realizing their full development as persons. This realization is the first step to slaying these inhibiting demons, laying them to rest, and living in a more integrated, authentic manner. (Brookfield, 2005, p. 14)

As previously described, the process of perspective transformation involves a shift in the adult frame of reference. Research in perspective transformation and transformative learning has widened the scope of the transformation and the changes that are experienced by people. For example, Cranton (2006a) asserts that:

the central process of transformative learning may be rational, affective, extrarational, or experiential depending on the person engaged in the learning and the context in which it takes place. The same individual in one context (the death of a spouse, for example) may experience transformation as an emotional crisis, while in another context (changing jobs, for example) may experience the process as one of quiet reflection. (p. 6)

Mezirow (1991a) points out that:

This process of perspective transformation . . . has been associated with a variety of concepts and experiences, including adult development, critical reflectivity, creativity, artistic expression, psychoanalytic therapy, conscientization, dialectical thinking, consciousness raising, philosophical analysis, some forms of religious conversion, and Eastern mysticism.

According to Brookfield (2005), social as well as personal perspectives may be transformed. While assessing Mezirow's research, Brookfield stated that "Ideology critique contains within it the promise of social transformation" (p. 13) and that doing ideology critique is equivalent to what he calls "systemic" critical reflection that focuses on probing sociocultural distortions (Mezirow, 1991b):

Mezirow argues that ideology critique is appropriate for critical reflection on external ideologies such as communism, capitalism, or fascism or for reflection on our own "economic, ecological, educational, linguistic, political, religious, bureaucratic, or other taken-for-granted cultural systems." (Mezirow, 1998, p. 193)

Merriam and Cafferella (1991) elaborate on the concept of social critique through the concept of conscientization, and describe its author, Paulo Friere (1970) as:

a Brazilian educator whose theory of adult education is set within a larger framework of social change. Education for Friere is never neutral; it either oppresses or liberates. Conscientization — "the process in which men, not as recipients, but as knowing subjects, achieve a deepening awareness both of the sociocultural reality which shapes their lives and of their capacity to transform that reality" — is what takes place in an educational encounter . . . increasing awareness of one's situation involves moving from the lowest level of consciousness, where there is no comprehension of how forces shape one's life, to the highest level of critical consciousness. Similar to Mezirow's "critical reflectivity" (1981), critical consciousness is marked by a thorough analysis of problems, self-awareness, and self-reflection. (p. 262)

Friere specifically identifies “problem-posing” as the key to liberating education:

In traditional banking education, deposits of knowledge are made into student receptacles; in problem posing, teachers and students cooperate in a dialogue that seeks to humanize and liberate. Central to the learning is a changed relationship between teacher and student. They are co-investigators into their common reality: the sociocultural situation in which they live. . . . The ultimate goal is liberation, or praxis, “the action and reflection of men upon their world in order to transform it.” (Merriam & Cafarella, 1991, pp. 262-263)

Research has also been conducted on perspective transformation that is triggered by Study Abroad programs (Sanders & Morgan, 2001; Taylor, 1998), and the field of depth psychology, with its “deeper emotional and spiritual dimensions of learning” that is “grounded in Jung’s concept of individuation (Boyd, 1991; Boyd & Myers, 1988)” (Dirkx, 2000).

Cranton (2006a) offers additional support on sociocultural transformation:

Transformation may be shared when a group works to question social conditions through collective action (such as during a protest against war or government policy) or individual when a person questions and reframes his or her unique beliefs and assumptions (such as when a learner comes to see that there are complex rather than black-and-white points of view on an issue). (p. 6)

Cranton (2002) provides additional perspective on perspective transformation by elaborating on three kinds of knowledge:

The larger framework within which transformative learning theory fits is based on Habermas’s (1971) three kinds of knowledge: instrumental, communicative (which Habermas calls practical) and emancipatory. Instrumental knowledge is cause-and-effect, objective knowledge derived from scientific methodologies. The acquisition of instrumental knowledge is a goal of education in the trades, technologies, and sciences. This is the kind of knowledge Andrew was seeking, but not finding. (For context on Andrew’s story, see the section on Examples of Transformative Learning later in this chapter.)

Communicative knowledge is the understanding of ourselves, others, and the social norms of the community or society in which we live. It is derived through language and validated by consensus among people. The acquisition of communicative knowledge is a goal in the study of human relations, political and social systems, and education.

Emancipatory knowledge, the self-awareness that frees us from constraints, is a product of critical reflection and critical self-reflection. Gaining emancipatory knowledge can be a goal in all facets of adult education, as we critically question, for example, the role of technology, which is in itself instrumental knowledge, or the underlying assumptions of a political system, which is in itself communicative knowledge. It is an explicit goal in life skills learning, literacy programs, self-help groups, women's studies courses, and community action groups. *The acquisition of emancipatory knowledge is transformative.* (p. 64)

Learning To Think Like An Adult

Learning as Transformation (Mezirow & Associates, 2000) is the central resource used in *LR* and *LR2* to describe transformative learning. In Mezirow's chapter titled *Learning To Think Like an Adult* he makes some critical statements about perspective transformation and transformative learning, beginning with some strong assertions about the constructivist assumptions about learning as an adult. "As there are no fixed truths or totally definitive knowledge, and because circumstances change, the human condition may be best understood as a continuous effort to negotiate contested meanings" (2000, p. 3). He continues:

That is why it is so important that adult learning emphasizes contextual understanding, critical reflection on assumptions, and validating meaning by assessing reasons. The justification for much of what we know and believe, our values and our feelings, depends on the context — biographical, historical, cultural — in which they are embedded. We make meaning with different dimensions of awareness and understanding; in adulthood we may more clearly understand our experience when we know under what conditions an expressed idea is true or justified. In the absence of fixed truths and confronted with often rapid change in circumstances, we cannot fully trust what we know or believe. Interpretations and opinions that may have worked for us as children often do not as adults. (pp. 3-4)

Mezirow (2000) then discusses Bruner's (1966) identification of four modes of making meaning (p. 4), and adds a fifth mode based on transformation:

1. establishing, shaping, and maintaining intersubjectivity;
2. relating events, utterances, and behavior to the action taken;

3. construing of particulars in a normative context — deals with meaning relative to obligations, standards, conformities, and deviations;
4. Making propositions — application of rules of the symbolic, syntactic, and conceptual systems used to achieve decontextualized meanings, including rules or inference and logic and such distinctions as whole-part, object-attribute, and identity-otherness.

Mezirow extends Bruner's theory by adding: "Transformation theory adds a fifth and crucial mode of making meaning: becoming critically aware of one's own tacit assumptions and expectations and those of others and assessing their relevance for making an interpretation" (2000, p. 4).

Mezirow (2000) next discusses how Kitchener (1983) has suggested three levels of cognitive processing, and how the third level correlates to transformation:

At the first level, individuals compute, memorize, read and comprehend. At the second level (metacognition), they monitor their own progress and products as they are engaged in first-order cognitive tasks. . . . The third level . . . (the) epistemic cognition, must be introduced to explain how humans monitor their problem solving when engaged in ill-structured problems, i.e. those which do not have an absolutely correct solution. Epistemic cognition has to do with reflection on the limits of knowledge, the certainty of knowledge, and the criteria for knowing . . . (E)pistemic cognition emerges in late adolescence, although its form may change in the adult years. (pp. 4-5)

Mezirow repeatedly states the critical role of emotional readiness and emotional maturity during the process of transformative learning. "Transformative learning, especially when it involves subjective reframing, is often an intensely threatening emotional experience in which we have to become aware of both the assumptions undergirding our ideas and those supporting our emotional responses to the need for change." (2000, pp. 6-7). Later in that same publication, he observes:

Effective participation in discourse and in transformative learning requires emotional maturity — awareness, empathy, and control — what Goleman (1998) calls “emotional intelligence” — knowing and managing one’s emotions, motivating oneself, recognizing emotions in others and handling relationships — as well as clear thinking. (p. 11)

And still later, Mezirow (2000) provides a synopsis of necessary preconditions which includes an emotional component:

Preconditions for realizing these values and finding one’s voice for free full participation in discourse include elements of maturity, education, safety, health, economic security, and emotional intelligence. Hungry, homeless, desperate, threatened, sick, or frightened adults are less likely to be able to participate effectively in discourse to help us better understand the meaning of our own experiences. (pp. 16-17)

Mezirow (2000) also underlined the importance of reflective discourse (outer dialogue), reflectiveness on assumptions (inner reflection), and the two fundamental steps identified by Boyd (1991) toward a personal transformation: “making public, primarily for ourselves, the historical dimensions of our dilemma” and “confronting it as a difficulty to be worked through” (pp. 22-23).

Mezirow (2000) states that transformative learning will occur only when the preceding processes occur. For the purposes of this study, a tracking checklist was created (see Appendix F) and applied to the evaluation of the individual learning experiences of research participants, in an attempt to offer some evidence that these identified conditions for transformative learning were present.

What Form Transforms?

Kegan’s article titled *What Form Transforms?* (Kegan, 2000) helps to clarify the process of perspective transformation by examining the historical and theoretical foundations of the “accommodative process” and “subject-object relationships” within adult perspectives. Kegan observes that “Piaget (1954) distinguished between

assimilative processes, in which new experience is shaped to conform to existing knowledge structures, and accommodative processes, in which the structures themselves change in response to new experience” (Kegan, 2000, p. 47).

Kegan then discusses informative learning (which Mezirow refers to as “meaning schemes”):

Learning aimed at increasing our fund of knowledge, at increasing our repertoire of skills, at extending already established cognitive capacities into new terrain serves the absolutely crucial purpose of deepening the resources available to an existing frame of reference. Such learning is literally in-form-ative because it seeks to bring valuable new contents into the existing form of our way of knowing. . . .*Informative* learning involves a kind of leading in, or filling of the form” (2000, pp. 48-49).

Kegan next investigates transformative learning (which Mezirow refers to as “meaning perspectives”):

learning aimed at changes not only in *what* we know but changes in *how* we know has an almost opposite rhythm about it and comes closer to the etymological meaning of education (“leading out”) . . . Trans-form-ative learning puts the form itself at risk of change (and not just change but increased capacity). If one is bound by concrete thinking in the study of, say, history, then, yes, further learning of the informative sort might involve the mastery of more historical facts, events, characters, and outcomes. But further learning of a transformative sort might also involve the development of a capacity for abstract thinking so that one can ask more general, thematic questions *about* the facts, or consider the perspectives or biases of those who wrote the historical account *creating* the facts. (2000, p. 49)

Kegan then describes the importance of both informative and transformative learning: “Both kinds of learning are expansive and valuable, one within a preexisting frame of mind and the other reconstructing the very frame” (2000, p. 49). He explains:

Certainly no passenger wants an airline pilot whose professional training was long on collaborative reflective dialogue leading to ever more complex apprehensions of the phenomena of flight but short on the technique of landing a plane in a crosswind; no patient wants a doctor trained in such dialogue but unable to tell a benign lump from a cancerous tumor. (2000, p. 49)

Kegan continues:

Informational and transformational kinds of learning are each honorable, valuable, meritable, dignifiable activities. Each can be enhancing, necessary, and challenging for the teacher to facilitate. In given moments or contexts, a heavier weighting of one or the other may be called for. (p. 51)

Kegan then elaborates on the fundamental question of “What form transforms?”

and identifies the centrality of epistemology:

transformational learning (requires) a more explicit understanding of the form we believe is undergoing some change. If there is no form, there is no transformation. But what really constitutes a form? Mezirow’s term *frame of reference* is a useful way to engage this. Its province is necessarily epistemological. Our frame of reference may be passionately clung to or casually held, so it clearly has an emotional or affective coloring. Our frame of reference may be an expression of our familial loyalties or tribal identifications, so it clearly has a social or interpersonal coloring. Our frame of reference may have an implicit or explicit ethical dimension, so it clearly has a moral coloring. But what about the phenomenon itself that takes on all these colorings? Mezirow . . . says a frame of reference involves both a habit of mind and point of view. Both of these suggest that, at its root, a frame of reference is a way of knowing. Epistemology refers to precisely this: not what we know but our way of knowing. Attending to the epistemological inevitably involves attending to two kinds of processes, both at the heart of a concept like transformational learning. The first is what we might call *meaning-forming*, the activity by which we shape a coherent meaning out of the raw material of our outer and inner experiencing. Constructivism recognizes that reality does not happen preformed and waiting for us merely to copy a picture of it. Our perceiving is simultaneously an act of conceiving, of interpreting . . . The second process inherent in the epistemological is what we might call reforming our meaning-making. This is a metaprocess that affects the very terms of our meaning-constructing. We do not only form meaning, and we do not only change our meanings; we change the very form by which we are making our meanings. We change our epistemologies. (2000, pp. 52-53)

Kegan next answers his own question in his chapter, *What Form Transforms?*:

Constructive-developmental theory invites those with an interest in transformative learning to consider that a form of knowing always consists of a relationship or temporary equilibrium between the subject and the object in one’s knowing. The subject-object relationship forms the cognate or core of an epistemology. That which is “object” we can look at, take responsibility for, reflect upon, exercise control over, integrate with some other way of knowing. That which is “subject” we are run by, identified with, fused with, at the effect of. We cannot be responsible for that to which we are subject. What is “object” in our knowing

describes the thoughts and feelings we say we have; what is “subject” describes the thinking and feeling that has us. We “have” object; we “are” subject.” Constructive-developmental theory looks at the process it calls development as the gradual process by which what was “subject” in our knowing becomes “object.” When a way of knowing moves from a place where we are “had by it” (captive of it) to a place where we “have it,” and can be in relationship to it, the form of our knowing has become more complex, more expansive. This somewhat formal explicitly epistemological rendering of development comes closest, in my view, to the real meaning of transformation in transformational learning theory” (2000, pp. 53-54).

Kegan next shows five increasingly complex epistemologies of Adult

Perspectives (see Appendix G), which he organizes as:

frames of mind, and how each of these can be described with respect to what is subject and what is object, and each shift entails the movement of what had been subject in the old epistemology to object in the new epistemology. Thus the basic principle of complexification of mind here is not the mere addition of new capacities (an aggregation model), nor the substitution of a new capacity for an old one (a replacement model), but the subordination of once-ruling capacities to the dominion of more complex capacities, an evolutionary model that again distinguishes transformation from other kinds of change. (2000, p. 60)

Kegan then cautions against the tendency to misuse that “array of increasingly complex epistemologies” of adult perspectives:

Surely any educator who wished to be helpful to (a student), especially one wishing to facilitate transformational learning, would do well to know and respect where (that student) is coming from, not just where it may be valuable for him to go. A constructive-developmental perspective on transformational learning creates an image of this kind of learning over a lifetime as the gradual traversing of a succession of increasingly more elaborate bridges. Three injunctions follow from this image. First, we need to know which bridge we are on. Second, we need to know how far along the learner is in traversing that particular bridge. Third, we need to know that, if it is to be a bridge that is safe to walk across, it must be well anchored on both sides, not just the culminating side. We cannot overattend to where we want the student to be — the far side of the bridge — and ignore where the student is. If (the student) is at the very beginning — the near side — of the bridge that traverses the socialized and the self-authoring epistemologies, it may be important to consider that this also means he is at the far side of a prior bridge. Only by respecting what he has already gained and what he would have to lose were he to venture forth is it likely we could help him continue his journey. (2000, pp. 60-61)

As Mezirow did, Kegan (1982) reinforces the importance of the role of emotions as individuals go through the process of perspective transformation:

Anxiety and depression may be the affective experience of the wrenching activity of differentiation in its first phases, but sooner or later the balance as to which self is “me” begins to shift, and the old equilibrium can be reflected upon from the new, emerged position. This experience, which begins the process of integration, of taking the old equilibrium as “object” in the new balance, is often affectively a matter of anger and repudiation. (Kegan, 1982, p. 82)

In Kegan’s 1994 work, *In Over Our Heads: The Mental Demands of Modern Life*, he discusses how the complexities of modern life demand transformative learning, but also the difficulties of actually experiencing that transformation:

it is *not* necessarily a bad thing that adolescents are in over their heads. In fact, it may be just what is called for *provided they also experience effective support*. Such supports constitute a holding environment that provides both welcoming acknowledgment to exactly who the person is right now as he or she is, and fosters the person’s psychological evolution. As such, a holding environment is a tricky transitional culture, an evolutionary bridge, a context for crossing over. It fosters developmental transformation, or the process by which the whole (“how I am”) becomes gradually a part (“how I was”) of a new whole (“how I am now”). (Kegan, 1994, p. 43)

King (2005) summarizes Kegan’s overview of transformative learning:

Kegan’s (2000) phrase, “What form transforms?” is an apt title to help us understand the breadth and depth of this inquiry; rather than procedural, performance-based outcomes, more rooted inner learning, and ways of knowing are at the heart of transformative learning. (King, 2005, p. 13)

Examples of Perspective Transformation

To provide insight into a transformative learning case study, Cranton (2002) describes an example of perspective transformation by one of her students:

Andrew was a student in *Methods and Strategies in Adult Education*, a course offered within the New Brunswick Community College Instructor Development Program, which is mandatory for all new college instructors. One goal of the program is to prepare individuals who are hired on the basis of their experience and expertise in their profession or trade for the world of teaching. The summer courses are intensive: students are in class five hours a day, five days a week, and

many choose to live in residence. Andrew was proud to come from a military background and equally proud that he was going to be teaching in a highly technical field.

Andrew's thinking and way of expressing himself was clear, organized, and practical, and he viewed things in absolute terms. From the course, he wanted specific rules to follow to guarantee successful teaching. He expected that I would be able to teach him exactly what he needed to do as a teacher. When this turned out not to be the case, Andrew was frustrated, even angry, with me and the entire program, which he viewed as useless. Our textbook, *No One Way: Teaching and Learning in Higher Education* (Cranton, 1998), did not help matters. Day after painful day, Andrew struggled to find the answers he was seeking amid our discussions of self-directed learning, teaching styles, and individual differences. Andrew was intellectually curious; he devoured the readings not only in search of the right answer but also because it was his nature to want to understand.

Sometime during the second week, after about forty hours of class time, there came a moment of profound silence when we all focused our attention on Andrew. I am not sure how he signaled to us that he had something important to say, but we all knew it. Breaking out of his confusion and resentment, Andrew announced that he saw, accepted, and clearly understood the shades of gray existing in knowledge about teaching. He understood that knowledge about teaching is communicative in nature and socially constructed. He saw that knowing how to teach his subject area was different from knowing his subject area. The moment was joyful and transformative. (pp. 63-64)

Andrew's perspective about the nature of knowledge had been transformed.

While he used to believe that all knowledge was received and there was an ultimate truth for everything, he came to understand that knowledge is constructed and relative to context. This was a fundamental shift in his meaning-making process, and a textbook example of perspective transformation.

A vivid personal description of his own perspective transformation comes from economist-philosopher E. F. Schumacher (in Wood, 1984):

On Monday, February 1st during my daily quarter of an hour, I came into contact with 'X'. As one can read in all the books, this cannot be described in words. But suddenly all sorts of things that I had not understood became completely clear — and in the most simple manner. Not that anything dramatic happened — no light, sound, vision, or experience; but merely an indescribable detachment from all that which usually tries to distract one during this quarter of an hour, and then, or with that, a new understanding. Sentences and scripture that had been a

mystery to me up to now and which I have since re-read suddenly became completely unambiguous and true. It became clear what Buddhists and Taoists understand by ‘emptiness’, ‘nothingness’, ‘Nirvana’ or ‘Tao’, and how it is possible that ‘Plenum’, ‘abundance’, ‘All’ or ‘Life’ can be used just as well. Since the 1st February I have not had any more doubts about the ‘truth’ of ‘work’ — that is; that it really shows the right path. Since then, not surprisingly, I have not been able to re-establish this contact. On the contrary, the ‘quarter of an hour’ has become more difficult than before. But an infinitely enlightened understanding has stayed and will, hopefully, remain. I write about this like one who seeks after gold, who shares with his fellow seekers that he has actually seen gold in the place where they are all looking. As I have in no way earned this rich strike, I can’t expect recurrence just like that. But that there is something to be discovered has now moved from the region of doubt (with good will) into certainty. (pp. 238-239)

From this description, it is evident that Schumacher experienced a transformation in his way of perceiving reality. His perspective transformed to a broader context and a higher abstraction that gave him a clearer view of issues and the circumstances that surround them. Schumacher attributed his experience to a spiritual epiphany.

In *Rethinking Student Affairs Practice* (Love & Estanek, 2004), this type of transformation is explained this way:

Metanoia is a dramatic reorientation of one’s being. In theological circles this type of reorientation might be described as a conversion experience. In one’s cognitive development, there is a dramatic reorientation as an individual moves from perceiving the world as inherently knowable and certain, to recognizing the world as ultimately unknowable, complex, ever changing, socially constructed, and ambiguous. We argue that such a conversion needs to occur within student affairs as well. Students are coming of age in a world where complexity and ambiguity are taken as givens. (p. 25)

Strategies for Facilitating Transformative Learning Opportunities

King (2005) postulates that transformative learning is not a guaranteed learning outcome, and refers only to “transformative learning opportunities” which may be pursued through the facilitation of certain intentional educational strategies.

Constructivist meaning-making is at the core of transformative learning, and must be included in the design of intentional strategies. As Jensen (1998) observed,

Learners want school to be worthwhile and meaningful. With so many different personalities, cultures, and types of students, how can school be meaningful for everyone? . . . (Instructors) can make learning richer and more appealing by purposely arranging the conditions for greater meaning. (p. 90)

Certain strategies have been identified that can help to facilitate transformative learning, always within the context of critically reflecting on experience. However, Cranton (2002) points out that to “explore ways in which we might set up conditions to foster transformation” we must realize that “there is no one way” (p. 64) and, as Pratt (2002) describes, “one size does not fit all” (Cranton, 2002, p. 64). Cranton continues:

There are no particular teaching methods that guarantee transformative learning. A provocative statement in a lecture, a story told by a fellow student, or an argument set out in an article are just as likely to stimulate critical self-reflection as is the most carefully crafted exercise. Often, neither we as teachers nor the transforming student can pinpoint just what initiated or sustained the process. A lot of what happens is within the student, and the teacher just happens to say or do something that hooks into that person’s thoughts or feelings. I think it is this environment of challenge that underlies teaching for transformation. Although this challenge must be combined with safety, support, and a sense of learner empowerment, it is, at the center, a challenge of our beliefs, assumptions, and perspectives that leads us to question ourselves. (p. 66)

Cranton’s (2002) “seven facets of transformative learning” provide a guide to helping us set up a learning environment to promote transformation:

1. An activating event that typically exposes a discrepancy between what a person has always assumed to be true and what has just been experienced, heard, or read.
2. Articulating assumptions, that is, recognizing underlying assumptions that have been uncritically assimilated and are largely unconscious.
3. Critical self-reflection, that is, questioning and examining assumptions in terms of where they came from, the consequences of holding them, and why they are important.
4. Being open to alternative viewpoints.
5. Engaging in discourse, where evidence is weighed, arguments assessed, alternative perspectives explored, and knowledge constructed by consensus.

6. Revising assumptions and perspectives to make them more open and better justified.
7. Acting on revisions, behaving, talking, and thinking in a way that is congruent with transformed assumptions or perspectives. (pp. 65-66)

Cranton (2002) next gives specific examples of transformative learning strategies:

Creating an activating event - In order to bring about a catalyst for transformation, we need to expose students to viewpoints that may be discrepant with their own . . . Whenever possible, we should use readings to present ideas from more than one point of view.

Articulating assumptions - Brookfield's (1990) technique of critical questioning can be helpful. Questions are crafted so as to encourage students to describe what they believe and how they came to believe it. (Other techniques include) student autobiographies . . . time capsules . . . (and) metaphor analysis.

Critical self-reflection - To encourage critical self-reflection, we need to provide the opportunity for students to question their assumptions: to examine what they think and how they feel and consider the consequences of holding certain assumptions. Critical self-reflection may take place in the classroom, but it is perhaps more likely to take place outside it. What we do in the classroom is set the stage for what may take place when our students are driving home, cooking supper, going for a walk, or telling someone about their day. Critical incidents . . . have been popularized by Brookfield (1995) as a means of fostering critical self-reflection. Students are asked to recall a best or worst experience . . . Analysis of the incidents, done in either small groups or the whole class, helps people examine their assumptions and provides a structure for reflections on practice. Reflective journals are widely used in adult education and for some, but not all, students are a good vehicle for critical self-reflection. Students who are more introverted than extroverted find journals especially helpful.

Openness to alternatives - (Strategies include) Role plays . . . critical debates . . . (and) ask students to write letters or memos from a different perspective.

Discourse - (Strategies include) Engaging in discourse . . . Addressing the same issue in two ways . . . (and) Dialogue journals . . . (where) students work in pairs or even triads. They may have one (or more) journal(s) that they pass from person to person, responding to each other's ideas.

Revision of Assumptions and Perspectives - Teaching for transformation is setting the stage and providing the opportunity. When students actually revise their assumptions or larger frames of reference, there is little we can do aside from giving support. The process may be painful for some, and we need to acknowledge this, or it may be joyous for others, and we can celebrate with the student. Whenever possible, we should make the time for one-on-one interaction with a student who is changing beliefs.

Acting on Revisions - Experiential learning projects, where students go out into the real world — schools, hospitals, businesses — can give them a chance to try out their transformed views . . . If experiential learning projects are not feasible, it is sometimes possible to set up a simulation of a real setting where

students have the opportunity to practice or talk about their new learning . . . Finally, we can help students set up action plans for when they leave the course or workshop. (pp. 66-70)

Cranton (2002) concludes:

When a student transforms her assumptions, becoming open to alternatives and new ways of thinking, it is a magical moment in teaching. We cannot teach transformation. We often cannot even identify how or why it happens. But we can teach as though the possibility always exists that a student will have a transformative experience.

There are no special methods that guarantee transformation, although transformation is always one of our goals. In every strategy we use, we need to provide an ever-changing balance of challenge, support, and learner empowerment. Sometimes to ask the right challenging question at the right time is the most important thing we can do. At other times, it is essential to validate a student's thoughts or feelings. And at yet another time, we need to say, "This is up to you now," because in the end, it is up to the student to transform" (Cranton 2002, pp.70-71).

Daloz, in his 1999 book *Mentor: Guiding the Journey of Adult Learners* formerly called *Effective Teaching and Mentoring: Realizing the Transformational Power of Adult Learning Experiences* in the 1986 version) builds on Sanford's (1962) concept of balancing challenge and support for growth in the learner (see Appendix H):

If both challenge and support are low, little is likely to happen. Things stay pretty much as they are. If support is enhanced, however, the potential for some kind of growth increases, but it is likely to emerge from the inner needs of the learner rather than from any stress imposed by the environment. The learner is confirmed and may feel good about himself but may also lack the capacity to engage productively with the outside world as well as he might if he were encouraged to communicate more actively with it. The risk that some highly student-centered college programs run is that in encouraging primarily self-expression, they fail to help their students acknowledge the legitimacy of a world different from their own and thus miss the crucial leap into contextualism.

Too much challenge in the absence of appropriate support, on the other hand, can drive the insecure student into retreat, forcing a rigid epistemology to replace the promise of a more fluid and complex worldview. It is no coincidence that many of the converts to new radical religious groups have dropped out of college after a year or so. Overstrained by the diversity they encounter there and undersupported in what can be a tragically cold and uncaring environment, they fall back to a more secure adolescent conformity, safely embraced by authoritarian simplicities. It is reassuring to know that in time most recover

enough to leave their sanctuaries, but the costs in the meantime can be considerable (Levine, 1984).

Finally, in an appropriate mix development can occur. Just what that is, of course, depends on the particular needs of the student and style of the mentor. Clearly, not every teacher works for every student. But if we are to believe that good mentorship can be learned, then it is in our interest to expand our capacities and deepen our sensitivity. (pp. 208-209)

Daloz (1999) then provides specific support, challenge, and vision behaviors that mentors can provide to the learners in their charge:

Support

- Listening (actively engaging with the student's world and attempting to experience it from the inside)
- Providing structure (close personal attention, clear expectations, specific assignments, short and achievable tasks, and predigested materials . . . are important)
- Expressing positive expectations (having positive expectations of students is one of the most important aspects of effective advising)
- Serving as advocate (mentors are often seen as powerful allies on the journey. They intercede with the powers, they translate arcane runes, they protect the pilgrim from assault)
- Sharing ourselves (as things progress . . . the pressure increases for the teacher to reveal himself as human, not god)
- Making it special (One of the most compelling qualities of the relationship is that it feels so special. The student feels uniquely seen by the mentor . . . and the effect can be a potent tonic)

Challenge

- Setting tasks (In addition to setting . . . exercises, mentors often ask for some kind of analysis of the tasks, reflection on the meaning of the job)
- Engaging in discussion (carry on discussions in which students have an opportunity to express their problems and progress)
- Heating up dichotomies (One effect of this encouragement to take differing or opposite perspectives is that the exercise heats up the dichotomies and creates greater pressure for resolution)
- Constructing hypotheses (This is the ability to spin off a chain of reasoned implications from a consciously constructed hypothesis)
- Setting high standards (One of the most persistent findings in studies of teacher effectiveness is that good teachers set high expectations for their students)

Vision

- Modeling (modeling the person whom the protégé wants to become)
- Keeping tradition (pass on tradition to the next generation)

- Offering a map (the decision to make major changes in one's life is often made intuitively; but to think about the meaning of the decision in the larger context of one's life is crucial if one is to integrate such a decision well and construct of it a foundation for further growth)
- Suggesting new language (the words we use and the way we use them are powerful indicators of how we see, of our particular vision of reality)
- Providing a mirror (one of the more important aspects of the special mirror that mentors hold up to their students is its capacity to extend the student's self-awareness). (Daloz, 1999, pp. 209-229)

So, challenging and supporting learners in their developmental struggle, as well as providing a vision of positive learning outcomes, are the most important things that we can do in the process of providing transformative learning strategies. This has been advocated within higher education for decades, as described by Nevitt Sanford:

This approach to developing the individual grows out of the belief that people do not change unless they encounter a situation to which they cannot adapt with the use of devices already present. They have to innovate, to generate some new response to meet the new situation offered them. (Sanford, 1966)

Conceptual content and hands-on activities that encourage processes of critical reflection and reflective observation in the learner are the most important content that we can provide. The following educational activities, from *Bringing Transformative Learning to Life* (King, 2005), are considered practical strategies for promoting transformative learning, when presented with an emphasis on being critically reflective:

- Case Studies
- Collaborative Learning
- Collaborative Writing
- Critical Incidents
- Discussion
- Interviews
- Round-Robin Discussion or Circle of Voices
- Student Presentations
- Journals
- Research Papers

Taylor, Marineau, and Fiddler (2000) also provides an extensive collection of strategies for developing adult learners through dialogical processes, becoming a continuous learner, moving toward self-agency and self-authorship, and making connections with others (pp. 373-382).

Other critically reflective strategies involve writing. Reflective journaling is perhaps the most widely used approach to creating an outlet for reflection (Lukinsky, 1990; Progoff, 1992). One Minute Papers, which are techniques espoused by Brookfield (1991) and others, are also often prescribed following a content presentation by an instructor or guest speaker. The students are given one minute to jot down the most important information they gleaned from the presentation, and are also asked to write down what unanswered questions they still have. A modified Cornell split-page note-taking process (with space on the left for writing down comments by the presenter, and with space for the student's reactions and questions in the right hand column) is another example of a critically reflective learning strategy that involves writing.

Any techniques that focus upon what Baxter Magolda (2001) calls "ill-structured problems" or what Schumacher (1977) called "divergent problems" can engage the student in critical reflection. These types of problems do not have a single permanent answer, and require human reflection, interaction, and dialogue to find a negotiated balancing point. This engages the critical reflection process and may provide a trigger for transformative learning to occur. This subjective process is based on the assumption that divergence leads to transcendence.

Readiness for Transformative Learning Opportunities

Readiness is a critical concept for transformative learning, or indeed any type of learning and development. As Sanford (1962) described in *The American College*:

Readiness (is) the notion that certain kinds of response cannot be made unless certain stages or conditions have been built up in the person . . . The personality does not just unfold or mature according to a plan of nature. Whatever the stage of readiness in the personality, further development will not occur until stimuli arrive to upset the existing equilibrium and require fresh adaptation.

Sanford (1962) continues: “What the state of readiness means most essentially is that the individual is now open to new kinds of stimuli and prepared to deal with them in an adaptive way.” The readiness of the learner is therefore a critical factor in the process of transformative learning.

King (2005) summarizes her views about readiness by expressing caution about forcing learners into unwanted transformation, and emphasizes ethical considerations within transformative learning:

At the same time that transformative learning holds many possibilities, we as educators need to be aware of the consequences of our actions and purposes. An important distinction in purpose is posed in the carefully chosen phrase used throughout this book — “transformative learning opportunities.” Ethically, adult educators needs to respect the rights, beliefs, values, and decisions of our adult learners, always . . . In providing transformative learning opportunities, we need to delicately balance the value we place on transformative learning and the learner’s decision to pursue it, or not. We must be careful and mindful to leave room for the adult learner to say, “I don’t want to go there.” Adults come to any learning experience with a multitude of individual circumstances and needs. Life in this millennium is complicated. As much as we might communicate the infinite shades of gray that exist in perspectives and understanding, so must we communicate the freedom not to pursue the pathway of questioning and new perspectives. This should not be a value judgment in any way, but perhaps best viewed as our own admission that we do not have all the answers and cannot make decisions for our learners. (p. 17)

Chapter III

Methodology

As stated, the purpose of this study is to explore how transformative learning fits into the experience of college students engaged in a semester-long leadership academy at a mid-sized western regional university, and uses mixed research methods in an attempt to measure them. This methodology chapter reviews the participants and sampling, instrumentation, procedures, design and analysis.

Assessing Student Learning and Development Outcomes

Strayhorn's *Frameworks for Assessing Learning and Development Outcomes* (2006) is a companion piece to the *CAS Standards* published by the Council for the Advancement of Standards in Higher Education. Described in its introduction by the CAS president as "a resource that would guide higher educational professionals in assessing learning outcomes," it provides much useful information. However, transformative learning outcomes, which by their constructivist nature must be assessed by qualitative measures, are not addressed in that work.

Strayhorn (2006) describes the historical rarity of applying qualitative research to measure student learning outcomes:

Literature suggests that qualitative approaches such as case study (Manning, 1992a) and naturalistic techniques like . . . historical inquiry (Schwartz, 1992) are highly effective ways of conducting research. These methodologies have been used in higher education studies, but few employ such techniques to assess college impacts on student learning and development outcomes (Evans, 2001; Evans & Broido, 1999).

Strayhorn (2006) further cites Pascarella's observation that "estimating the net or unique impact of college on students is one of the most difficult problems in the social sciences."

Upcraft and Schuh (1996) describe the difficult nature of measuring student learning outcomes:

Outcomes assessment is the most valid way of demonstrating the effectiveness of student services, programs, and facilities, especially in defending and promoting student affairs, but also in meeting accreditation standards. It is also the most difficult, complex and misunderstood of all the assessment methodologies.

In an attempt to address the challenge of assessing student learning outcomes, Cope and Nading (2007) provide structure for learning outcomes as an A-B-C-D model:

Audience/Who - Who does the outcome pertain to?

Behavior/What – What do you expect the audience to know/be able to do?

Condition/How - Under what conditions or circumstances will the learning occur?

Degree/How much - How much will be accomplished, how well will *the behavior* need to be performed, and to what level?

Cope and Nading (2007) then give an example of applying this model to a student case: *As a result of attending five counseling sessions at the Student Counseling Center, students will be able to identify one or more strategies to cope with their problem.*

Cope and Nading (2007) then ask, “Are your learning outcomes measurable?” And if so, “What types of measures might you use to measure your outcomes?” They note that learning outcomes have to be measurable to be effective, and then offer some examples of measures to assess outcomes:

Database info	Reports
Records	Document analysis
Pre/post	Reflection
Demonstrations	Observations
Interviews	Focus groups
Written papers, projects	Posters and presentations
Peer-evaluations	Self-evaluations
Surveys	Portfolios
Checklists	Tests, exams, quizzes
One minute papers	

At the conclusion of this study, the question of what measures can be used to assess transformative learning, and the idea of applying the A-B-C-D model to address transformative learning outcomes, will both be revisited.

Assumptions and Rationale for a Mixed Methods Research Design

As has been stated, the constructivist nature of transformative learning requires a qualitative research design. As has also been stated, qualitative studies are rarely used to assess college impacts on student learning and development outcomes. However, *Learning Reconsidered* (Keeling, 2004), *Learning Reconsidered 2* (Keeling, 2006), the *CAS Professional Standards for Higher Education* (Dean, 2006) and the *CAS Frameworks for Assessing Learning and Development Outcomes* (Strayhorn, 2006) all call for the pragmatic application of measuring student learning outcomes. By applying both qualitative and quantitative paradigms to this research problem, and using a mixed methods approach, a more complete understanding of transformative learning and the complexities of assessing this process may emerge (see Table 1).

Strayhorn (2006) states that “many tend to describe quantitative and qualitative methodologies as if the two were not of a whole (Smith, 1983).” He observes,

While there are significant differences in the underlying assumptions of these two approaches, fundamentally, they represent different ways of knowing or epistemologies. . . . A number of experts argue that both should be used, quantitative and qualitative research methods, one with the other, to understand more fully the complexities of human existence (Fry, et al, 1981; Smith, 1986; Stage, 1992). (pp. 21-22)

Mixed methods may have the best potential for measuring student learning outcomes in transformative learning. The quantitative data can show objective evidence that conditions for transformative learning are present, as well as for other more easily

Table 1

A Comparison of Qualitative, Quantitative, and Mixed Methods Approaches

Research Approach	Knowledge Claims	Strategy of Inquiry	Methods
Quantitative	Post-positivist assumptions	Experimental design	Measuring attitudes, rating behaviors
Qualitative	Constructivist assumptions	Ethnographic design	Field observations
Qualitative	Emancipatory assumptions	Narrative design	Open-ended interviews
Mixed methods	Pragmatic assumptions	Mixed methods designs	Closed-ended measures, open-ended observations

Source: Creswell (2003)

measurable student learning outcomes. The qualitative data may show evidence that a student is *bridging* from one level to the next, and that conditions for transformative learning are present.

Qualitative research is inductive (principles are derived from particular facts or instances). The qualitative research design describes emergent patterns that may help to describe, understand, develop, or discover the phenomena being studied. These emergent patterns may help the researcher to develop a theory or compare them to existing theories (Creswell, 1994). “Qualitative methodologies are based on the assumption that knowledge is socially constructed and therefore not wholly describable or controllable (Stage, 1992)” (in Strayhorn, 2006, p. 21).

Phenomenological research is a form of qualitative human science research that examines an existential phenomenon (such as *joy*) through qualitative interviews with subjects that have experienced it. This interview evidence contributes to a greater understanding of the phenomenon through interpreted insights. Meaning is created, and

knowledge is extended about the phenomenon (Moustakas, 1994). Perspective transformation and transformative learning are well suited to phenomenological qualitative research, because of their phenomenological nature.

Quantitative research is deductive (conclusions necessarily follow from propositions stated). In a quantitative research design, a researcher tests a theory and measures variables (Creswell, 1994).

Strayhorn (2006) describes quantitative research as:

assigning numbers and symbols (e.g., X, Y) to constructs of interest — also known as variables (Hair, Anderson, Tatham, & Black, 1998). Quantitative methodologies are based on positivistic perspectives that view the world and knowledge as objective and knowable. Under this frame, knowledge can be known in part and ultimately is completely describable and controllable (Stage, 1992).

Creswell and Plano Clark (2007) identify three ways of mixing quantitative and qualitative data in an attempt to gain a better understanding of the subject undergoing study: *merge* by bringing together, *connect* by building on the other, or *embed* “so that one type of data provides a supportive role for the other dataset” (p. 7). This cross-referencing triangulation of quantitative and qualitative results provides rich data in the search for a correlation of patterns and relationships within the results.

The Role of the Researcher

In a mixed methods study, there are multiple roles for the researcher. The roles of the quantitative researcher and the qualitative researcher are fundamentally different. The quantitative researcher measures and records objective, closed-ended data, and then conducts statistical analysis on that numerical data. The qualitative researcher interprets subjective, open-ended data.

Because the qualitative researcher interprets, her or his “bias, values, and judgment . . . become stated explicitly in the research report” (Creswell, 1994, p. 147). Moustakas (1994) states that it is impossible for researchers to completely *bracket* themselves from their own subjective viewpoints, and describes the origins of this process: “Husserl called the freedom from suppositions the *Epoche*, a Greek word meaning to stay away from or abstain” (p. 85).

Population of the Study

The participants in this study were comprised of 11 college student participants who formed the membership of a credit-optional, self-selected, semester-long Leadership Academy at a mid-sized western university. All of the students indicated on their application forms that they wanted to join the Leadership Academy because they were interested in developing competence and/or confidence in their leadership abilities.

Working with students who were interested in developing their potential as leaders was an excellent fit for this study, as they were already interested in their intentional development. In his book *On Becoming a Leader* (1989), Warren Bennis stated that the process of becoming a leader is much the same as becoming an integrated human being. Hitt (1993) built on this premise:

In his remarkable insight, Bennis points us toward a path that focuses on the leader *as a person, a fully functioning person*. He has captured the essence of leadership and handed us a simple map we can use.

Adding to what Bennis said, here, then, is how we see the collective wisdom on leadership:

1. Leadership is generally described as *influence*, the art or process of influencing people so that they will strive willingly toward the achievement of group goals (Koontz, O'Donnell, and Weihrich).
2. This influence is brought about through an effective *personal relationship* between the leader and the followers. The relationship *elevates* followers into their better selves.

3. For a leader to be able to lift followers into their better selves, the leader must be at a *higher level of being* than that of the followers. (James McGregor Burns)
4. By *higher level of being*, we mean that the leader is *psychologically mature*. The degree to which the leader can create relationships which facilitate the growth of followers as separate persons is a measure of the psychological growth of the leader. (Carl Rogers)
5. A psychologically mature leader can best be defined as a *fully functioning person*. A fully functioning person is one who is using all of his or her faculties — and has developed them into a real unity. (Goethe)

Of the 11 participants in the Leadership Academy, 7 were women, and 4 were men. These participants were assigned an alias first name to protect their actual identity. Their ages ranged from 19-54, but 9 of the 11 members of the group were age 19-23, a *traditional* age for undergraduates. All of the 11 were undergraduates, with a distribution of 1 freshman, 3 sophomores, and 7 juniors (see Table 2).

Table 2

Demographic Profile of Participants in the Study

Subject	Gender	Age	Class	Major
Tom	M	33	Sophomore	Theater
Tammy	F	20	Junior	Marketing
Diane	F	19	Junior	Psychology
Steve	M	22	Junior	Business
Kathy	F	19	Freshman	Education
Teri	F	20	Sophomore	Music Education
Sharon	F	54	Junior	American Studies
Jen	F	22	Junior	Family & Consumer Sciences
David	M	21	Sophomore	Mass Communications
Roy	M	23	Junior	Biology
Pam	F	22	Junior	Communication

These students met nine times during the spring semester of 2007, including an opening reception, seven work sessions, and a closing banquet. During the seven work sessions on alternate Thursday nights, they spent three hours together. The first hour was spent with a guest speaker who addressed a particular leadership topic, largely basing their presentation on their own leadership experiences. (Guest speakers and topics during that *Leadership Academy* semester are described in Appendix I.)

The second hour was spent with a member of the university Outdoor Program staff who was an expert in providing team-building activities. These team-building activities began with simple name games at the beginning of the semester and culminated at the end of the semester in a free rappel from the rafters of the domed football stadium all the way down to the 50 yard line of the astroturf field.

During the third hour of each work session, the students were given time to meet to work on planning their respective service learning projects. At the first work session they participated in an *issues convention* where they discussed their ideas for service learning projects, and had to make decisions of how they would break into small groups and move forward with small project groups. They were given resources of the *Seven Cs* model of social change (Astin & Astin, 1996), and the *PARE* model for planning successful service learning projects (Morrison, 2005). They were also informed that a panel of judges would be on hand for their final project presentations at the last scheduled work session. The judges would consider how they distributed leadership responsibilities, how decisions were made, and how they applied the leadership topics that were presented by guest speakers (plus the *Seven Cs* and *PARE* models) into the planning and delivery of their service projects.

Implementation of Transformative Learning Strategies

Multiple transformative learning strategies were employed throughout the Leadership Academy sessions. Academy participants were asked to take notes during presentations by the guest speakers, by using a modified Cornell note-taking system. In this system, a vertical line is drawn down the center of the page, and students take notes of remarks by the speaker in the left hand column, and in the right hand column place their personal reactions to the material. This system provides a pre-designed means for students to self-reflect on the meaning of the material. Further, these notes could then be used as a reference tool when students were asked at the conclusion of the presentation to complete a *90 second paper* to identify what to them were the most important things learned during the presentation, and also what unanswered questions they still had on the subject.

During the second hour of each work session, the group was challenged to solve group initiative problems. Many of these challenging activities involved problem-solving which required critical reflection on suggestions and attempts made by the group to solve the problems.

Three of the Academy participants (Diane, Kathy, and Sharon in Table 2) also chose to register for academic credit through a 400-level course called *Independent Problems in Student Leadership*. This required a minimum number of contact hours in direct, interpersonal leadership involvement; written journals; and an analytical academic paper on a leadership topic.

These and other transformative learning activities (as described by King, 2005) were employed with an intentional emphasis on fostering critical reflection for transformative learning, including:

- Case Studies (as presented by guest speakers)
- Collaborative Learning (through service learning projects and team-building initiatives)
- Collaborative Writing (through preparation of presentations about service learning projects)
- Critical Incidents (encountered through service learning projects)
- Discussion (with guest speakers, through team-building initiatives, and service learning projects)
- Interviews (following the completion of the Leadership Academy)
- Round-Robin Discussion or Circle of Voices (as applied through an *Issues Convention* to determine service-learning projects)
- Student Presentations (to peers and to an outside judge about service learning projects)

As mentioned, those students who enrolled in the independent study course completed additional transformative learning activities as recommended by King (2005):

- Journals (reflecting upon leadership experiences)
- Research Papers (on a leadership topic of their choosing)

Survey Instruments

Both quantitative and qualitative research instruments were employed in this study. The quantitative instruments were the *Developmental Advising Inventory*, a commercially available assessment tool, and the *Leadership Knowledge Survey* (see Appendix J), an internally developed instrument that measured knowledge about leadership topics that were covered in the *Leadership Academy*.

Developmental Advising Inventory (DAI)

The *Developmental Advising Inventory* (Dickson & McMahon, 1989) provides a holistic approach to student development, and may provide some valuable insights into

the overall impacts of the transformative learning activities used during the conduct of the *Leadership Academy*. This is a commercially available quantitative instrument, available in printed and online versions, described at www.dai.com.

The *DAI* asks respondents to self-evaluate their agreement or disagreement about their personal development through a total of 135 questions. There are 15 questions asked about personal development in each of the following nine dimensions:

Intellectual	Life Planning	Social
Physical	Emotional	Sexual
Cultural	Spiritual	Political

Of particular interest may be the *DAI* self-assessment responses about emotional development, since emotional readiness is a threshold condition for transformative learning. Also, some of the *DAI* questions are specified for a *Foundation for a Student Development Curriculum* (Dickson & Thayer, 1993) that may prove to be of significance for this study (see Appendix L).

Leadership Knowledge Survey (LKS)

Participants were asked prior to the *Leadership Academy* (in January) and after (in May) to describe their understanding of each of the topic areas covered in the Academy. (Note that the following list, developed in 2001 by a student leader when she proposed the idea for a *Leadership Academy*, overlaps significantly with the *Framework for Assessing Learning and Development Outcomes* for Leadership Development which is found in Appendix C and was published in 2006.)

Vision	Goal-Setting
Leadership Styles	Situational Leadership

Teamwork	Risk-Taking
Identifying Strengths in Others	Delegation
Values	Ethics and Character
Decision-Making	Conflict Management
Attitude	Initiative
Social Change	Community Service
Global Perspectives	Lifelong Learning

Quantitative change in self-assessed understanding of these informative topic areas was compared to the other instruments to search for correlations.

The qualitative instrument was an internally developed interview with 10 questions (see Appendix M). In addition, an informed consent form was signed by each of the participants in the study (see Appendix K).

Interviews

Ten open-ended, qualitative interview questions were asked of each *Leadership Academy* participant at the end of the semester, after the *Academy* was concluded (see Appendix M). Most of the questions were designed to draw out responses pertinent to transformative learning. However, the opening question was intentionally vague and begged an open-ended response. This question was based on William Perry's opening question in his research on college student intellectual and ethical development in the college years.

Daloz (1986) describes how William Perry interviewed his college students each spring, obtaining a picture "more akin to a motion picture than isolated snapshots"

(p. 78). Over time, Perry saw that there was movement in the thinking of his students, and that they changed in how they thought..

Perry and his colleagues “began to listen to students’ answers to the least-loaded question they could devise, one borrowed from Robert Merton: “Why don’t you start out with whatever stands out for you about the year?” (Daloz, 1986, p. 78) It was student responses to this question and others that led to Perry’s discovery of student intellectual and ethical development in college.

Partly in tribute to Perry and his colleagues and their work, and partly in an attempt to begin with a minimally-loaded question, “Why don’t you start out with whatever stands out for you about the semester?” became the first question used in the interview of participants in this study. Follow-up questions sought to address specific issues relevant to perspective transformation (specifically if they had experienced a change of worldview, self-examined their assumptions, experienced disorientation, or other issues relevant to transformative learning).

Research Questions

In this research project, the grand tour question is: “How does transformative learning fit into the experience of college students who are engaged in a semester-long leadership academy at a mid-sized western regional university?”

The following sub-questions are also investigated in this study:

1. Quantitative measures: Is there a relationship between *developmental self-assessment* quantitative measures (within the nine dimensions of the *Developmental Advising Inventory* and the 18 categories of the *Leadership Knowledge Survey*) among and between participants in this study?

2. Qualitative measures: How do the research participants describe their *lived experiences* of key aspects of transformative learning and perspective transformation?
3. Qualitative measures: Were *conditional thresholds* for transformative learning reached in different ways for different participants in this study?
4. Mixed method measures: Can we come to a better understanding of student transformative learning and perspective transformation by analyzing their levels of developmental self-assessment, lived experiences, and conditional thresholds?

Data Collection

Pre-assessment refers to assessment conducted prior to participation in the Leadership Academy and the planned transformative learning activities. *Post-assessment* refers to assessment conducted after participation in the Leadership Academy and the accompanying transformative learning activities.

Pre- and Post-assessment

Instrument #1 (the *Developmental Advising Inventory*) and #2 (*Leadership Knowledge Survey*) were administered to all participants within the first week of the spring 2007 Leadership Academy. Not all participants completed the Leadership Academy, and not all of the original group completed these instruments at the end of the semester-long program.

Post-assessment

Qualitative cross-sectional interviews (instrument # 3) of 10 questions, lasting less than one hour each, were conducted with *Academy* participants during the final week

of the semester-long program, to help assess the impact of the transformative learning techniques on the students' learning and development. Phenomenological interviewing techniques (open-ended questions using *epoche*, etc. as previously described in Moustakas and Creswell) were used. The interviews were held in the researcher's Student Affairs office, and tape recorded with the knowledge of the subjects. The taped interviews were later transcribed for coding and analysis.

Data Analysis

Quantitative Measures

Nominal analysis was conducted on the responses to the *DAI* quantitative instrument and the *Leadership Knowledge Survey* among and between research participants.

Qualitative Measures

The transcripts of the taped interviews were coded for thematic analysis, to seek to identify structural invariants. Based on the responses, an attempt was made to create an understanding of the process based on an *exhaustive description* of the *structural invariants* of the phenomenon. Representative statements were collectively categorized into one of three stages of transformation according to the type of dialogue.

Additional qualitative data that was collected but not used for the purposes of this study included short answers with personal profiles and experiences that were written on the application form for the Leadership Academy; 90-second response papers that were completed by each student participant during seven meeting sessions (that identified the most important thing that they derived from each leadership topic, as well as the biggest unanswered question they still had about the leadership topic that was discussed by guest

speakers; and weekly journals that were kept by three participants who chose an academic 1-2 credit independent study option.

Mixed Measures

Relevant data from all measures were entered into the *Evidence of Transformative Learning Conditions* checklist (see Appendix F) that was created by the researcher (based on Mezirow & Associates, 2000) in an attempt to identify evidence showing if threshold conditions were being met for transformative learning to occur. Results from all research instruments were integrated and analyzed in an attempt to gain a better understanding of the complexities of transformative learning, and to help distinguish it from informative learning.

This study will contribute to a clearer understanding of the phenomenon of perspective transformation and the ways in which it is experienced, which will help to illuminate the importance of this critical step in the process of adult and lifelong learning.

Chapter IV

Findings

As previously stated, the purpose of this study is to explore how transformative learning fits into the experience of college students, and to use mixed research methods in an attempt to measure them. By applying both quantitative and qualitative measures to this research problem, and using a mixed methods approach, a more complete understanding of transformative learning and the complexities of assessing this process was undertaken.

Quantitative Measures

The quantitative data that is referenced in this study is intended to inform the ways that informative learning is different from transformative learning. The post-assessment participation in the quantitative measures was low, but this data is largely supplemental to the main purpose of this study, which is an exploration of transformative learning.

All 11 Leadership Academy participants completed the *Developmental Advising Inventory (DAI)* self-assessment pre-test at the beginning of the semester, but only five completed the post-test at the end of the semester. These same five participants were the only ones to complete all of the requirements for the successful completion of the Leadership Academy. Nominal analysis was conducted on the responses to the quantitative *DAI* instrument, among and between research participants.

In addition, all 11 Academy participants completed another quantitative instrument, the *Leadership Knowledge Survey*, prior to participating in the Leadership Academy, but only seven completed it at the end of the semester. Nominal analysis was

conducted on the responses to the quantitative *Leadership Knowledge Survey* instrument, among and between research participants.

Qualitative Measures

Ten of the 11 Academy participants gave interviews at the end of the Leadership Academy. The transcripts of the taped interviews were coded for thematic analysis, to seek to identify structural invariants. Based on the responses, an attempt was made to create an understanding of the process based on an exhaustive description of the structural invariants of the phenomenon. Data from the qualitative measures were entered into the *Evidence of Transformative Learning Conditions* checklist that was created by the researcher (based on Mezirow, 2000, see Appendix F) in an attempt to identify threshold conditions for transformative learning to occur.

Mixed Measures

The qualitative data from the interviews were the main determinants for categorization of participant dialogue within three stages of transformative learning (see Table 20). However, some of the relevant quantitative findings that showed evidence of self-reflection and the challenging of personal assumptions (such as reversals in self-assessment on the *Developmental Advising Inventory*) were also included in adjusted categorizations (see Tables 24 and 25).

Quantitative Findings

As previously stated, nominal analysis was conducted on pre-test and post-test responses on two quantitative measures. The first was the *Developmental Advising Inventory (DAI)*. This included the dimension of emotional development and critical

reflection questions within *student development curriculum* responses across several of the dimensions.

Participants answered *DAI* self-assessment statements in 9 developmental dimensions. There were 15 questions in each dimension with a range of 1-4 (*1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree*). The highest possible score within any dimension was 60 (if all 15 items were scored *strongly agree* or 4), with a possible low of 15 (if all 15 items were scored *strongly disagree* or 1).

Table 3 represents a comparison of all 135 *DAI* pre-test and post-test scores (15 responses in each of 9 dimensions), followed by the change between the scores. For example, 46/50 (+4) would represent a pre-test score of 46, a post-test score of 50, and a change of +4 between the scores.

Within the *Intellectual* dimension, four of the five respondents recorded an increase in their total scores, while the fifth had no net change. Within the *Life Planning* dimension, three of the respondents recorded an increase in their total scores, one recorded a decrease, and the other had no net change. Within the *Social* dimension, two of the group recorded increases, two recorded decreases, and one had no net change.

Within the *Physical* dimension, one respondent recorded an increase in their total score, three recorded decreases, and one had no net change. Within the *Emotional* dimension, three respondents recorded an increase in their total scores, while two had net decreases. Within the *Sexual* dimension, one recorded an increase in their total score, while three recorded decreases, and one had no net change.

Within the *Cultural* dimension, two respondents recorded increases, two recorded decreases, and one experienced no net change. Within the *Spiritual* dimension, one

Table 3

Comparison of Pre- and Post-Test Scores in All Nine DAI Developmental Dimensions

Dimension	Steve	Kathy	Sharon	David	Pam	Total Group Change
Intellectual	46/50 (+4)	35/41 (+6)	44/48 (+4)	46/46 (0)	44/48 (+4)	+18
Life Planning	45/49 (+4)	42/41 (-1)	43/55 (+12)	54/54 (0)	35/45 (+10)	+25
Social	48/52 (+4)	42/40 (-2)	44/53 (+9)	54/54 (0)	56/51 (-5)	+6
Physical	48/47 (-1)	42/42 (0)	46/53 (+7)	46/45 (-1)	48/46 (-2)	+3
Emotional	47/48 (+1)	37/40 (+3)	38/44 (+6)	48/45 (-3)	45/44 (-1)	+6
Sexual	48/48 (0)	47/45 (-2)	46/54 (+8)	53/51 (-2)	57/50 (-7)	-3
Cultural	37/44 (+7)	46/41 (-5)	49/59 (+10)	51/51 (0)	50/48 (-2)	+10
Spiritual	43/37-40*	41/39 (-2)	54/59 (+5)	55/53 (-2)	51/50 (-1)	-3 to -6*
Political	42/45 (+3)	35/36 (+1)	43/51 (+8)	46/45 (-1)	47/46 (-1)	+10
Total individual change	+16 to +19*	-2	+69	-9	-5	+69 to +72*

(* Steve failed to respond to one of the post-test questions in the *Spiritual* dimension, so his individual post-test score and *total group change* score in the *Spiritual* dimension, plus his *total individual change* and *total group change* scores, are represented to reflect the range of his possible post-test score choices of 1-4 for that item)

respondent recorded an increase in their total score, while the other four recorded decreases (one individual failed to respond to one of the items, but regardless of his score on that one, he still would have shown an overall decrease within that dimension).

Within the *Political* dimension, three respondents recorded increases in their total scores, while two recorded an overall decrease.

Total group scores were increased within each dimension except two: overall decreases were recorded within the *Sexual* and *Spiritual* dimensions. *Life Planning* had the greatest overall increase (+21) followed by *Intellectual* (+18).

Total individual scores were increased by two respondents, while decreases were recorded by three. The greatest total increase was +69 for Sharon. Steve also recorded a total increase in scores (+16 to +19, depending on how this individual would have responded to one item that was not answered in the post-test). David and Pam both recorded an overall decrease of -9, while Kathy recorded a decrease of -2.

A closer examination of pre- and post- self-assessment responses within the *Emotional* dimension was made due to the fact that *emotional stability* is one of the preconditions necessary to experience transformative learning (Mezirow, 2000). The 15 developmental self-assessment statements within that dimension are as follows:

Emotional Dimension

61. I express compassion easily.
62. I say "No" to requests from friends without feeling guilty.
63. I do not place excessive stress on myself.
64. I accept my mistakes without intense frustration or aggression.
65. I express affection appropriately and often.
66. I do not worry about my decisions after they are made.
67. I bounce back quickly from loneliness and depressed moods.
68. I handle the stress placed on me by others well.
69. I do not make important decisions when I am confused or tense.
70. I express anger constructively.

- 71. I express my feelings after considering their impact on myself and others.
- 72. I am not afraid to take risks.
- 73. I am optimistic even when things look bad.
- 74. I feel good about myself even with personal qualities I do not like.
- 75. I adapt effectively to unexpected change and disappointment.

Table 4 shows the pre- and post-assessment scores in the *Emotional* dimension.

The only *Emotional* dimension item where everyone's self-assessment changed between the pre- and post test was statement #64: "I accept my mistakes without intense frustration or depression." Two of the group scored themselves lower in the post-assessment, and three scored higher. (This may well have been a reflection of the observed differences experienced between group members within small group projects. Some groups worked together well, while others experienced substantial difficulties.)

The only *Emotional* dimension item where everyone's answer stayed the same between the pre- and post test was item #74: "I feel good about myself even with personal qualities I do not like." (This may have been a reflection of their awareness of and acceptance of personal identity development.)

Total individual scores within the *Emotional* dimension were increased by three respondents, while decreases were recorded by two. The greatest total increase was +6 for Sharon. Kathy also recorded an increase (+3) as did Steve with +1 (which included substantial changes of +2 and -2 within his responses). The others recorded an overall decrease, with David -3 and Pam -1.

Table 4

Comparison of Pre- and Post-Test Scores in the DAI Emotional Dimension

Emotional Statement Number	Steve	Kathy	Sharon	David	Pam	Total Group Change
61	4/3 (-1)	3/2 (-1)	3/4 (+1)	4/4 (0)	2/3 (+1)	0
62	4/3 (-1)	1/2 (+1)	3/3 (0)	2/2 (0)	2/3 (+1)	+1
63	2/3 (+1)	2/2 (0)	2/2 (0)	3/2 (-1)	3/2 (-1)	-1
64	2/4 (+2)	3/2 (-1)	2/3 (+1)	2/3 (+1)	3/2 (-1)	+2
65	4/3 (-1)	3/2 (-1)	3/4 (+1)	3/3 (0)	4/4 (0)	-1
66	2/4 (+2)	2/3 (+1)	2/3 (+1)	3/2 (-1)	3/3 (0)	+3
67	3/3 (0)	2/3 (+1)	2/2 (0)	4/4 (0)	2/3 (+1)	+2
68	3/2 (-1)	3/3 (0)	3/3 (0)	4/4 (0)	2/2 (0)	-1
69	4/3 (-1)	3/3 (0)	3/3 (0)	3/3 (0)	3/3 (0)	-1
70	3/3 (0)	3/3 (0)	3/3 (0)	4/3 (-1)	4/3 (-1)	-2
71	3/3 (0)	2/3 (+1)	3/3 (0)	4/4 (0)	3/3 (0)	+1
72	4/3 (-1)	3/3 (0)	2/3 (+1)	3/2 (-1)	3/3 (0)	-1
73	3/4 (+1)	2/3 (+1)	2/3 (+1)	3/3 (0)	4/3 (-1)	+2
74	3/3 (0)	3/3 (0)	3/3 (0)	3/3 (0)	4/4 (0)	0
75	3/4 (+1)	2/3 (+1)	2/2 (0)	3/3 (0)	3/3 (0)	+2
Total individual change	47/48 (+1)	37/40 (+3)	38/44 (+6)	48/45 (-3)	45/44 (-1)	+6

A closer examination of pre- and post- self-assessment responses within the *Student development curriculum* items (identified by *DAI*) was included due to the fact that many of these questions focus on critical reflection, which is a process necessary to experience transformative learning. The description in parentheses () following each

category and self-assessment statement (e.g., *Cultural*, tolerance) is taken from the *DAI Advisor's Guide* (Dickson & Thayer, 1993, pp. 43-47). The 43 developmental self-assessment statements within are described within the dimensions of *Intellectual* (thinking skills), *Emotional* (expressing emotions), *Cultural* (tolerance), *Spiritual* (values development), and *Political* (learning the system, and leadership and service). The particular 43 statements and research study participant responses within the *Student Development Curriculum* follow:

Intellectual (thinking skills)

2. I examine assumptions critically before drawing conclusions (assumptions)
 5. I separate facts from opinions when evaluating information (facts – opinions)
 7. I make successful decisions based on what my heart tells me (intuition)
 9. I analyze difficult situations by reducing them to manageable parts (complexity)
 10. I focus on the basic issues in ambiguous and uncertain situations (ambiguity)
 14. I search for creative ways to solve problems (solutions)
- (6 questions on thinking skills)

Six questions within the *Intellectual* dimension were identified as *thinking skills*.

The *Intellectual* dimension items with the most total increase in scores were #9 and #14, with total group increases of +2. The item with the most absolute change (increase or decrease from original scores) was #5, with two scores increasing and one score decreasing, for an absolute change of three. Within these six selected *Intellectual*

Table 5

Comparison of Pre- and Post-Test Scores in the DAI Student Development Curriculum
(Intellectual Dimension Items on Thinking Skills)

Intellectual Statement Number	Steve	Kathy	Sharon	David	Pam	Total Group Change
2	3/3 (0)	2/2 (0)	3/3 (0)	3/4 (+1)	3/3 (0)	+1
5	3/4 (+1)	3/3 (0)	3/3 (0)	2/3 (+1)	4/3 (-1)	+1
7	4/4 (0)	3/3 (0)	3/3 (0)	4/3 (-1)	3/3 (0)	-1
9	3/3 (0)	2/3 (+1)	3/3 (0)	3/4 (+1)	3/3 (0)	+2
10	3/4 (+1)	3/3 (0)	3/3 (0)	3/2 (-1)	3/3 (0)	0
14	3/4 (+1)	3/3 (0)	3/4 (+1)	3/3 (0)	3/3 (0)	+2
Total individual change	+3	+1	+1	+1	-1	+5

dimension items, there were no items where everyone's self-assessment stayed the same. However, two items had four of the five individuals record the same pre- and post scores (#2 and #7). The item with the greatest overall decrease was #7 (-1).

Total individual scores within the *Intellectual* dimension were increased by four of the five respondents, while a decrease was recorded by one. The greatest total increase was +3 by Steve. Kathy, Sharon, and David all recorded an increase of +1. David had the greatest absolute change with five of six scores changing between the pre- and post assessment. Pam recorded an overall decrease of -1.

Emotional (expressing emotions)

61. I express compassion easily (compassion)

62. I say "No" to requests from friends without feeling guilty (guilt)

65. I express affection appropriately and often (joy and affection)
70. I express anger constructively (anger)
71. I express my feelings after considering the impact on myself and others
(sensitivity)
- (5 questions on expressing emotions)

Table 6

*Comparison of Pre- and Post-Test Scores in the DAI Student Development Curriculum
(Emotional Dimension Items on Expressing Emotions)*

Emotional Statement Number	Steve	Kathy	Sharon	David	Pam	Total Group Change
61	4/3 (-1)	3/2 (-1)	3/4 (+1)	4/4 (0)	2/3 (+1)	0
62	4/3 (-1)	1/2 (+1)	3/3 (0)	2/2 (0)	2/3 (+1)	+1
65	4/3 (-1)	3/2 (-1)	3/4 (+1)	3/3 (0)	4/4 (0)	-1
70	3/3 (0)	3/3 (0)	3/3 (0)	4/3 (-1)	4/3 (-1)	-2
71	3/3 (0)	2/3 (+1)	3/3 (0)	4/4 (0)	3/3 (0)	+1
Total individual change	-3	0	+2	-1	+1	-1

While the *Emotional* dimension was already examined, the *DAI* identified certain items within that dimension as part of a *Student Development Curriculum* called *expressing emotions*. These items are isolated and examined here.

The *expressing emotions* items with overall increases were #62 and #71, with +1 total group change. The item with the greatest absolute change was #61, with four of the

five respondents changing their scores between the pre- and post assessment (+2 and -2 for a net total of 0), but this also made it the item with the least overall change (0). Item #71 had the most respondents stay the same, with four of the five respondents recording no change in scores between the pre- and post test.

Total individual scores within *Emotional* development were increased by two respondents, decreases were recorded by two, and one stayed the same. The greatest total increase was +2 for Sharon. Pam also recorded an increase (+1). Kathy had no change in total score (0) but had the greatest absolute change with two scores increasing and two decreasing. The others recorded an overall decrease, with Steve -3 and David -1.

Cultural (tolerance)

- 91. I promote sensitivity and equality among different religions (religious differences)
- 93. I encourage involvement in ethnic activities (ethnic involvement)
- 94. I have experienced the feeling of being a minority (minority feelings)
- 95. I have close friends of different cultures or minority backgrounds (cross-cultural friends)
- 96. I accept people with different sexual preferences (homophobia)
- 97. I have attended a party or meeting where I was a minority (cultural initiative)
- 98. I do not stereotype others because of race or ethnic origin (stereotyping)
- 100. I seek experiences which help me understand people from other cultures (cultural openness)

101. I challenge ethnic or religious stereotyping by my friends and others

(challenging bigotry)

105. I seek experiences which support my ethnic or cultural identity (cultural

identity)

(10 questions on tolerance)

Table 7

Comparison of Pre- and Post-Test Scores in the DAI Student Development Curriculum

(Cultural Dimension Items on Tolerance)

Cultural Statement Number	Steve	Kathy	Sharon	David	Pam	Total Group Change
91	1/2 (+1)	3/3 (0)	3/4 (+1)	3/3 (0)	4/4 (0)	+2
93	2/3 (+1)	4/3 (-1)	4/4 (0)	3/4 (+1)	3/3 (0)	+1
94	4/3 (-1)	3/3 (0)	3/4 (+1)	4/4 (0)	2/3 (+1)	+1
95	3/2 (-1)	4/3 (-1)	4/4 (0)	4/4 (0)	3/3 (0)	-2
96	2/3 (+1)	3/3 (0)	3/4 (+1)	2/3 (+1)	4/4 (0)	+3
97	4/2 (-2)	3/3 (0)	3/4 (+1)	4/4 (0)	2/3 (+1)	0
98	3/3 (0)	4/3 (-1)	3/4 (+1)	4/3 (-1)	4/4 (0)	-1
100	3/4 (+1)	3/3 (0)	4/4 (0)	4/4 (0)	4/3 (-1)	0
101	4/3 (-1)	2/2 (0)	3/3 (0)	3/2 (-1)	4/4 (0)	-2
105	3/3 (0)	4/3 (-1)	3/4 (+1)	4/3 (-1)	3/2 (-1)	-2
Total individual change	-1	-4	+6	-1	0	0

There were no *Cultural (tolerance)* items where everyone's self-assessment changed or stayed the same between the pre- and post test. The item with the greatest group increase was #96 (+3). The items with the greatest absolute changes in scores were #97 and #105, which had a total difference of four between pre- and post scores. Items #95, #101, and #105 had the greatest overall group decreases (-2).

Total individual scores within *Cultural (tolerance)* were increased by one respondent, decreases were recorded by three, and one respondent had no net change. The increase was +6 for Sharon. Pam had no overall change (0). Kathy recorded the greatest overall decrease (-4, which included a drop of -2 on item #97) while Steve and David both recorded a decrease of -1.

Spiritual (values development)

106. I often take time for spiritual reflection (spiritual reflection)

108. I regularly take time to appreciate the beauty around me (aesthetics and beauty)

111. I have thoughtfully evaluated theories of creation and evolution (creation and evolution)

112. I am actively involved in discovering the meaning of life (meaning in life)

115. I am comfortable with my beliefs on life, death, and life after death (life and death)

116. I thoughtfully reflect on the significance of daily events in my life (present and future)

120. I live according to my beliefs about the existence of a Supreme Being

(Supreme Being)

(7 questions on values development)

Table 8

Comparison of Pre- and Post-Test Scores in the DAI Student Development Curriculum

(Spiritual Dimension Items on Values Development)

Spiritual Statement Number	Steve	Kathy	Sharon	David	Pam	Total Group Change
106	2/2 (0)	3/3 (0)	4/4 (0)	4/3 (-1)	3/4 (+1)	0
108	2/3 (+1)	2/2 (0)	4/4 (0)	3/2 (-1)	4/4 (0)	0
111	2/4 (+2)	2/3 (+1)	3/4 (+1)	3/4 (+1)	3/3 (0)	+5
112	3/3 (0)	2/2 (0)	4/4 (0)	4/4 (0)	4/3 (-1)	-1
115	4/2 (-2)	4/3 (-1)	3/4 (+1)	4/4 (0)	4/4 (0)	-2
116	3/3 (0)	2/2 (0)	3/4 (+1)	3/4 (+1)	4/4 (0)	+2
120	4/2 (-2)	3/3 (0)	4/4 (0)	4/4 (0)	3/3 (0)	-2
Total individual change	-1	0	+3	0	0	+2

Within the *Spiritual (values development)* questions there were no items where all scores changed or stayed the same between the pre- and post assessment. Item #111 had four of the five respondents increase scores between the pre- and post assessment. Items #112 and #120 had four of the five respondents keep their scores the same.

The item with the greatest group increase was #111 (+5) which included a jump of +2 by one individual, Steve. Items #115 and #120 showed the greatest overall

decreases in group scores (-2), but these both included drops of -2 by that same individual, Steve.

Total individual scores within *Spiritual (values development)* were increased by one respondent, with no net change by three respondents, and an overall decrease recorded by one respondent. The increase was +3 by Sharon. The decrease was -1 by Steve, who also had the greatest absolute change in scores (7) which included an increase of +2 on item #111, and decreases of -2 on items #115 and #120.

Political (10 questions on learning the political system)

123. I have read the statement of *Student Rights and Responsibilities*. (student rights)

125. I discuss major Supreme Court decisions with my friends. (Supreme Court)

127. I am resourceful and diplomatic when dealing with bureaucracies.
(bureaucracies)

128. I know the names of my legislators and student government president.
(leaders and government)

129. I watch or read the news on a daily basis. (current events)

130. I question whether media presentations are biased or inaccurate. (news media)

131. I understand the values and beliefs of different political parties. (political parties)

132. I use opposing arguments to improve my own views. (opposing arguments)

133. I am knowledgeable about basic civil and criminal laws and procedures.
(law)

135. I attend debates, panels, or speeches on current social issues. (information sources)

Table 9

*Comparison of Pre- and Post-Test Scores in the DAI Student Development Curriculum
(Political Dimension Items on Learning the System)*

Political Statement Number	Steve	Kathy	Sharon	David	Pam	Total Group Change
123	2/2 (0)	2/2 (0)	2/3 (+1)	1/3 (+2)	3/3 (0)	+3
125	1/3 (+2)	2/2 (0)	2/3 (+1)	2/2 (0)	2/2 (0)	+3
127	3/3 (0)	2/2 (0)	3/3 (0)	3/4 (+1)	3/3 (0)	+1
128	1/2 (+1)	1/3 (+2)	2/3 (+1)	4/4 (0)	4/3 (-1)	+3
129	4/3 (-1)	2/2 (0)	4/4 (0)	4/3 (-1)	4/3 (-1)	-3
130	4/3 (-1)	2/3 (+1)	3/3 (0)	3/2 (-1)	4/4 (0)	-1
131	3/3 (0)	3/3 (0)	2/3 (+1)	3/3 (0)	3/2 (-1)	0
132	3/4 (+1)	3/2 (-1)	3/3 (0)	3/2 (-1)	2/3 (+1)	0
133	4/3 (-1)	2/3 (+1)	3/4 (+1)	4/4 (0)	2/3 (+1)	+2
135	2/2 (0)	2/2 (0)	2/3 (+1)	2/2 (0)	4/3 (-1)	0
Total individual change	+1	+3	+6	0	-2	+8

Within the *Political (learning the system)* statements there were no items where all scores changed or stayed the same between the pre- and post assessment. Three items (#128, #132, and #133) had four of the five respondents change scores between the pre-

and post assessment. Item #127 had four of the five respondents keep their scores the same between the pre- and post assessment.

The items with the greatest group increase in scores (+3) were #123, # 125, and #128, which included a jump of +2 by a different individual in each item. Item #129 had the greatest group decrease in scores (-3).

Total individual scores within *Political (learning the system)* were increased by three respondents, with no net change by one respondent, and an overall decrease recorded by one respondent. The greatest increase was +6 by Sharon. Kathy had an increase of +3, and Steve had an increase of +1. The decrease was -2 by Pam, and David recorded no overall change.

Political (5 questions on political leadership and service)

121. I vote in local, state, and national elections. (voting)

122. I try to make an impact in solving campus or community problems.

(community problems)

124. I assist people who are poor, disabled, and aged. (unempowered people)

126. I seek opportunities to become an effective leader. (leadership options)

134. I take action on political issues that are local, national, or international.

(political choices)

Within the *Political (leadership and service)* statements there were no items where all scores changed between the pre- and post assessment, although item #134 had four of the five respondents change scores between the pre- and post assessment. All scores stayed the same on one item (#121).

Table 10

Comparison of Pre- and Post-Test Scores in the DAI Student Development Curriculum
(Political Dimension Items on Leadership and Service)

Political Statement Number	Steve	Kathy	Sharon	David	Pam	Total Group Change
121	2/2 (0)	2/2 (0)	4/4 (0)	3/3 (0)	4/4 (0)	0
122	3/4 (+1)	3/3 (0)	3/4 (+1)	4/4 (0)	2/4 (+2)	+4
124	3/3 (0)	3/2 (-1)	4/4 (0)	3/3 (0)	4/3 (-1)	-2
126	4/4 (0)	4/3 (-1)	4/4 (0)	4/4 (0)	4/3 (-1)	-2
134	3/4 (+1)	2/2 (0)	2/3 (+1)	3/2 (-1)	4/3 (-1)	0
Total individual change	+2	-2	+2	-1	-1	0

The item with the greatest group increase was #122 (+4) which included a jump of +2 by one individual, Pam. Items #124 and #126 showed the greatest overall decreases in group scores (-2).

Total individual scores within *Political (leadership and service)* were increased by two respondents, with an overall decrease recorded by three respondents. The increases were +2 by Steve and Sharon. The greatest decrease was -2 by Kathy. The other decreases (-1) were recorded by David and Pam.

As previously stated, nominal analysis was conducted on pre-test and post-test responses on two quantitative measures. The second was the *Leadership Knowledge Survey*. This included 18 categories of *leadership knowledge* with a range of four possible responses to each category. These were scored as follows: *No understanding* =

1, *Limited understanding* = 2, *Moderate understanding* = 3, and *Comprehensive understanding* = 4. The highest possible score within the *Leadership Knowledge Survey* was 72 (if all 18 categories were rated *Comprehensive understanding* or 4) and the lowest possible score was 18 (if all 18 items were scored *No understanding* or 1).

Seven participants completed the pre-test and post test on the *Leadership Knowledge Survey*. Table 11 represents a comparison of all 18 *Leadership Knowledge Survey* pre-test and post-test scores, followed by the change between the scores. The lowest pre-score was 42 by Sharon, and the highest pre-score was 50 by Steve. The lowest post-score was 56 by Jen and Roy, and the highest post-score was 68 by Steve.

Note that the two lowest post-scores (56) and the two lowest total score increases (+12 and +11) were by Jen and Roy, who were the two individuals who took the pre- and post *Leadership Knowledge Survey* but did not complete the *Leadership Academy*. The five individuals who completed the *Leadership Academy* had total score increases of +14 to +18, and their post scores ranged from 60 to 68.

Table 12 represents a comparison of all 18 *Leadership Knowledge Survey* pre-test and post-test scores by the five participants who completed all of the quantitative and qualitative instruments, followed by the change between the scores. The lowest pre-score was 42 by Sharon, and the highest pre-score was 50 by Steve. The lowest post-score was 60 by Sharon and David, and the highest post-score was 68 by Steve.

The five individuals who completed the *Leadership Academy* and completed all of the quantitative and qualitative instruments had total score increases of +14 to +18, and their post scores ranged from 60 to 68.

Table 11

Comparison of Leadership Knowledge Survey Pre-Test and Post-Test Results (for Seven Participants who Completed LKS Pre- and Post-Test)

	Steve	Kathy	Sharon	Jen	David	Roy	Pam	Total Group Change
Vision	3/4	3/4	2/3	2/3	3/4	3/4	2/3	+7
Goal setting	4/4	3/4	4/4	3/4	3/4	3/3	1/3++	+5
Leadership styles	3/4	2/3	1/3++	2/3	2/4++	2/3	3/4	+9
Situational leadership	2/4 ++	3/3	1/3++	2/3	2/3	2/4++	3/4	+9
Teamwork	3/4	3/4	3/4	3/2*	3/4	3/3	4/3*	+2
Risk taking	3/4	2/3	2/4++	3/3	2/2	2/4++	2/3	+7
Identifying strengths in others	2/3	2/3	2/3	3/4	2/3	3/4	3/4	+7
Delegation	3/4	3/3	2/4++	3/4	2/3	4/3*	2/4++	+6
Values	3/4	3/4	3/3	3/4	3/4	3/3	2/3	+5
Ethics & character	3/4	3/4	3/3	2/4++	2/4++	3/2*	2/3	+6
Decision making	3/4	3/3	3/3	3/3	3/3	2/4++	2/3	+4
Conflict mgmt.	3/4	2/3	2/2	2/3	2/3	2/2	2/3	+5
Attitude	3/3	3/4	2/3	3/3	3/3	3/4	3/3	+3

Table 11 continues

	Steve	Kathy	Sharon	Jen	David	Roy	Pam	Total Group Change
Initiative	3/4	3/4	2/4++	2/3	3/3	3/4	2/3	+7
Social change	2/3	2/3	2/3	2/2	2/3	1/1	2/3	+5
Community service	3/4	4/4	4/4	2/2	2/3	3/2*	3/4	+2
Global perspectives	2/3	2/3	2/3	2/2	2/3	1/2	3/4	+6
Lifelong learning	2/4++	3/4	2/4++	2/4++	2/4++	2/4++	3/4	+12
TOTALS	50/68 (+18)	49/63 (+14)	42/60 (+18)	44/56 (+12)	43/60 (+17)	45/56 (+11)	44/61 (+17)	+107

(* Indicates a decrease of one level between the pre-test and post-test.)

(++ Indicates an increase of two levels between the pre-test and post-test.)

Table 12

Comparison of Leadership Knowledge Survey Pre-Test and Post-Test Results for Five Participants who Completed the Leadership Academy and all Quantitative and Qualitative Assessments

	Steve	Kathy	Sharon	David	Pam	Total Group Change
Vision	3/4	3/4	2/3	3/4	2/3	+5
Goal setting	4/4	3/4	4/4	3/4	1/3++	+4
Leadership styles	3/4	2/3	1/3++	2/4++	3/4	+7
Situational leadership	2/4 ++	3/3	1/3++	2/3	3/4	+6
Teamwork	3/4	3/4	3/4	3/4	4/3*	+3
Risk taking	3/4	2/3	2/4++	2/2	2/3	+5
Identifying strengths in others	2/3	2/3	2/3	2/3	3/4	+5
Delegation	3/4	3/3	2/4++	2/3	2/4++	+6
Values	3/4	3/4	3/3	3/4	2/3	+4
Ethics & character	3/4	3/4	3/3	2/4++	2/3	+5
Decision making	3/4	3/3	3/3	3/3	2/3	+2
Conflict mgmt.	3/4	2/3	2/2	2/3	2/3	+4
Attitude	3/3	3/4	2/3	3/3	3/3	+2
Initiative	3/4	3/4	2/4++	3/3	2/3	+5
Social change	2/3	2/3	2/3	2/3	2/3	+5

Table 12 continues

	Steve	Kathy	Sharon	David	Pam	Total Group Change
Community service	3/4	4/4	4/4	2/3	3/4	+3
Global perspectives	2/3	2/3	2/3	2/3	3/4	+5
Lifelong learning	2/4++	3/4	2/4++	2/4++	3/4	+8
TOTALS	50/68 (+18)	49/63 (+14)	42/60 (+18)	43/60 (+17)	44/61 (+17)	+86

(* Indicates a decrease of one level between the pre-test and post-test.)

(++ Indicates an increase of two levels between the pre-test and post-test.)

Qualitative Findings

The qualitative interviews consisted of participant responses to 10 open-ended questions at the conclusion of the semester. Ten of the 11 students completed the interview (regardless of whether they completed the Leadership Academy). Participant responses were compared to the 10 threshold conditions for transformative learning to take place, as listed below (also see *Evidence of transformative learning threshold conditions* in Appendix E). Selected statements were numerically coded (1, 2, etc.) at the end of the statement according to which condition may have been met.

According to Mezirow (2000), “Transformations often follow some variation of the following phases of meaning becoming clarified” (p. 22). These 10 phases or conditions follow:

1. distortions in current meaning perspectives which cause a disorienting dilemma;
2. self-examination with feelings of fear, anger, guilt, or shame;

3. becoming critically aware of one's own tacit assumptions and expectations and those of others and assessing their relevance for making an interpretation;
4. epistemic processing and reflection when engaged in ill-structured problems;
5. emotional readiness;
6. dialectical process (outer);
7. reflective process (inner);
8. transforming frames of reference;
9. making public, primarily for ourselves, the historical dimensions of our dilemma; and
10. confronting (our dilemma) as a difficulty to be worked through.

Mezirow (1991a) stated that transformative learning will occur only when four of these processes (#6, 7, 9 and 10) occur. (See the discussion following Table 13 for more on this.)

Interview Responses

Tom. Through this interview Tom (a 33-year-old sophomore theater major with multiple piercings and tattoos) described how he was confronting his past (which included stealing, getting drunk, sexual activity with different partners, and using porn), and was moving toward accomplishing meaningful goals in his life. His coded statements follow:

- I'm just tired of being the old not ever changing (self) and being the same. I already know what that outcome is. I've lived that life, and I want something different. The only thing that's going to make that happen is my own choice.

No one else is going to do it for me. I've made lots of changes in my life. I'm a whole different person than I was a couple of years ago. (1)

- I hated the way I was. (2)
- I (am) acting more mature and growing up slowly. I don't party as much. That's what I used to do all the time. (3)
- I am choosing my friends differently; people that have goals, instead of people who just don't want to do anything. (3)
- I told them goodbye and that I didn't want to do it any more. (3)
- People don't get that right when they look at me. It's funny, like when I'm riding my bike down the street and I am listening to my headphones, people probably think that I am listening to some punk rock music, and I am actually listening to symphonies or Philip Glass. (3)
- I think a lot about . . . Why are we here? I think it's to love one another . . . Love is actually a chemical (reaction) within your brain. I don't think that there's Hell and fire and pitchforks and all that. I think everyone's wrong about Heaven . . . I think there's positive and negative energy, and Heaven and Hell are probably just light and darkness or positive and negative, and your energy goes . . . into that.
- That doesn't mean you're going to be bouncing on a cloud and living forever . . . I think about those things. I evaluate those thoughts. (4)
- I am just me, and I am very happy with who I am . . . I am really comfortable with who I am. I know who I am and I know what I want. (5)
- I get pleased really easily. I'm happy with whatever. I mean, I've had nothing several times over, and I was still happy . . . I could go home right now and my house could be in a pile of smoldering ashes, and I would probably think a good thought first, like, at least I don't have any more stuff to worry about. (5)
- I listen to feedback . . . constructive criticism. I like that. (6)
- I'm looking more now at long-term goals. It used to be short-term ones. Now I'm planning, like, years ahead. (7)
- I used to steal a lot from thrift stores . . . and I learned that doing honorable stuff, when you know no one else is looking but you do the right thing anyway, those are like, self, inner battles that I have had and I have actually overcame. (7, 9)
- This semester I am in all advanced classes, and I never thought I would be there like from where I came. (8)
- I am cleaning my whole spiritual inner self, trying to keep my body and mind pure. (8)
- I am not dumb but I have my weak spots. (9)
- I know what I need to work on in myself and I take responsibility for my actions. (10)

From these representative statements, it is evident that Tom has critically reflected upon his life, and has challenged his own assumptions. Key statements provide

supporting evidence for meeting some of the identified conditional thresholds for transformative learning.

Tammy. Through this interview Tammy (a 20-year-old junior marketing major) described her busy life with school and activities including her sorority, and her struggle to identify an academic major and future career. Some representative statements include:

- In my sorority . . . we are all kids. We just want to have fun. We go wherever and not even think about anything. I started working here (with school activity programs) and (in the) Leadership Academy and I had to deal with grownups, and actually this semester I had to think about things more. I think about things before I do them now — things that might have bad consequences to them — so it has definitely made me aware that I am becoming an adult. (1)
- I have had a lot of close friends that have had something disrupt their lives, but not myself. (1)
- I have pretty much come to accept myself the way I am. It's been twenty years, and so far I don't really hate myself. I pretty much like myself. I have a lot of friends so that helps me like myself, knowing that I'm a friendly person and people like me. (5)
- Even though I'm young, I think I have a pretty good view on life and what I have to do to make it and be as successful as I know I want to be, and that it's going to be a lot of hard work. (10)

From these representative statements, there is some evidence that Tammy has begun to critically reflect upon her own life. Key statements seem to provide some supporting evidence that she is beginning to approach a few of the identified conditional thresholds for transformative learning. However, her response about “deal(ing) with grownups” that was correlated to conditional threshold #1, may simply indicate the beginnings of an awareness of an impending change, and is not necessarily an actual representation of true distortions within her current meaning perspective.

Diane. Through this interview Diane (a 19-year-old junior psychology major) described her busy school and work schedules, her clear life goals to pursue graduate

degrees, and also some issues in her personal life that made this a difficult semester.

Some representative statements include:

- Recently with everything that has been going on I can feel myself recoiling. I shy away from people. I used to be very outgoing. I don't really do much of anything. Like, everyone is in a big group studying and things like that and I am just staying at home studying. (5)
- I am still scared. (5)

From these representative statements, it is evident that Diane had suffered some traumatic event that caused her emotional distress. During the interview she made it clear that she is very focused on her studies and has set a challenging academic path for herself to progress toward her educational and career goals. However, she also experienced some personal issues during the semester that resulted in some emotional distress and insecurity. Key statements seemed to provide supporting evidence that while she may have been facing some disorientation in her life, she did not have the emotional readiness to experience transformative learning at this time.

Steve. Through this interview Steve, who was a 22-year-old junior business management major, described his involvement as president of an honor society on campus and his strong focus on good grades. He also voiced disappointment that his group service project did not go as well as he would have liked. Some of his representative statements include:

- I had to learn that people don't always think on the same levels as you do or don't see maybe everything the same way you do, and I guess being more understanding and respectful of other people's opinions and why they feel a certain way. That's probably the biggest thing that I've learned on campus and through the Leadership Academy is that everyone isn't the same, not everyone always thinks the same way you do and even though you may think that the way you're doing something may be the most effective way to you, maybe there's other ways as well that can lead you to the same conclusion in the same amount of time . . . so that's probably been the biggest thing is just understanding and being more open minded. (3)

- Groups can be very effective when they are working together but when they are not working together they are probably even worse than just an individual doing it . . . The biggest surprise was the lack of communication . . . It caused a lot of confusion. (3)
- It just helped me to realize that management and being a leader is really what I want to do, and even though there's a lot of barriers you have to overcome and stressful times, I guess being able to overcome those is what being a leader really is, or a big part of it anyway. (3)
- I guess just being a better listener overall, instead of always sometimes too quick to say things, or want to, when someone else says something, to follow that up real quick, other than to just listen to all that they have to say first, I think that's something that I've definitely learned, and tried to get better at. (3)
- I think that just in general, being more educated, learning different things, even with the tests that we had to take at the very beginning of the Leadership Academy, it definitely made me realize where my strengths and weaknesses were, and maybe I thought that one of my weaknesses actually turned out to maybe be one of my strengths, and maybe one of my strengths actually turned out to be one of my weaknesses. (3)
- I think that especially getting more involved in the community, I think that's probably been the biggest thing . . . understanding how important it is to be involved in the community, and how important it is to give back. Also, the effect that that has on the individual or individuals' lives by doing service projects. I know a lot of times we do service projects maybe because we're forced to or told to, and not really stopping and looking at how appreciative the other people are who are benefiting from the service that you're doing . . . There's a lot of people in the community and the world in general who need our help when we're able to have the resources to give, and just how important and fulfilling that is to be able to help those people that are in need. (3)

From these representative statements, it is evident that some of Steve's basic assumptions and expectations about leadership, self, teamwork, and community were challenged. Key statements seem to provide supporting evidence of some increased awareness about differences in levels of awareness and participation between people, but there does not appear to be significant challenging of assumptions or disorientation.

Kathy. Through this interview Kathy (a 19-year-old freshman education major) described her educational and career aspirations, and her involvement as a “driven

person” in many campus activities, including Civitan, a sorority, and as a member of the student government Supreme Court. Some of her representative statements include:

- I think I have gained a lot of information, not only through my classes but also through clubs and getting to know more students, seeing more options, and trying new things.
- I would say that as conflicts come up with the Supreme Court . . . it definitely has made me question some of the things I do and how it would be perceived by other people, and what would be best not only for me but for my family and other people. (3)
- Now I try to actually incorporate my officers a lot more within campus Civitan. (6)

From her representative statements, Kathy did not indicate that she has experienced any disorientation in her perspective. She tries to apply new things that she has learned while striving to maintain her traditional values.

Teri. Teri (a 20-year-old sophomore music education major) is the only student who did not participate in the interview. She was one of the original 11 students who began the semester with the Leadership Academy, but she did not complete the program.

Sharon. Through this interview Sharon (a 54-year-old junior American studies major) described her recent return to college after a 33-year absence. Her motivation for returning to school was that she wants to teach, but she has also rediscovered her own joy of learning and experiencing new things. Some representative statements include:

- Two years ago if you would have told me that I was going to be interacting with a group of people who were of different cultures, of different sexual orientations, of different ages, I would have looked at you like you had three heads. (6)
- I am going to school and reading materials that I never would have been exposed to before. (1)
- I started to go to school the year before and I was coming out of a very abusive marriage and met with people on the campus and I was in such an emotional state that I couldn’t even fill out the paperwork to register for school let alone . . . ! And I look at where I am now, and in the last year I have learned to kayak, I have gone on big trips, I have cross-country skied and stayed in a yurt . . . I have climbed to the top of the (football) arena and

rappelled down! My children, as I tell them I'm doing these things, look at me like "Who are you and what have you done with our mother?" Until I got out of that situation, I did not realize how much of who I was, 30 plus years ago, I had lost, and how much I am slowly getting it back. And that's one of the reasons I am doing things outside of school. I think I'm making up for lost time. (9)

- I am learning to trust again. (5)
- There has been a lot of introspection, self-examination, and growth for me. (7)
- I am actually considering going to a third world country for a year of teaching. (10)

From these representative statements, it is evident that Sharon has recently experienced some significant new life experiences. Her emotional state could be characterized as having improved from a depressed state. These key statements provide supporting evidence for meeting many of the identified conditional thresholds for transformative learning.

Jen. Through this interview Jen (a 22-year-old junior family and consumer sciences major) described her "most challenging semester" yet, as a presidential intern, religious club president, member of the Leadership Academy, and holding down a job while taking classes. Some of her representative statements include:

- I would definitely say with my identity there is disequilibrium. I think that I don't have a clear picture of who I am and of my identity, and I think until I do that and I'm able to look at myself in a more positive light or a more realistic view then I think I still will be in disequilibrium . . . I know that my actions and my thoughts about myself are very very unequal and that they don't match. (1)
- I think that (regarding) a lot of things that come to campus, (the religious organization for which I am president) doesn't take a stand, but I really think about what's on campus, and how it would impact [campus], and how the community looks at what I do, and how I react to events, and want my opinion . . .
- I really think about how I react and what my opinions and beliefs are. So that's been really good for me this year. (3)
- I can see that bigger things can happen . . . (and) see that what I am doing right now is probably going to affect who I will become in the future and I haven't really considered that as much before. (4)

- I honestly critically examine myself almost on a weekly basis and look at what I believe and I am very very introspective, I guess, so that's something normal that I do. I do a lot of thinking as I'm driving or walking around, because that's all the time I really get to think and be by myself. At that moment, I just like to see where I'm standing right now, and I often like to think about how I can do better, and just what is important to me and what my priorities are. I think that values are reflected in your priorities. (7)

From these representative statements, it is evident that Jen is struggling with her leadership roles and with trying to reconcile her integrity. However, she speaks about issues of emotional instability (5) that may prevent her from further exploring the process of transformative learning:

- I would say I am very very hard on myself and I have very very low esteem and I am very shy and introverted. I critically examine myself, but I have a very negative view. I really don't care much for the person that I am . . . I'm just not satisfied. I guess it's because I seek so much for perfection . . . I haven't critically or objectively or rationally looked at myself this semester. It's all through my foggy lens of my biases.

David. Through this interview David (a 21-year-old junior mass communication major) described his transition back into school this semester after living abroad for two years in Mongolia on a church mission. Some representative statements include:

- I think that I started this semester with just maybe some biases, maybe just some preconceived notions that this is how I'm going to fit in, and this is how people are, I think that I was just very centrally minded, and just being able to work with a lot of diverse people, people I never had even associated myself with, kind of opened my horizons that there are different people on campus, and a prime example of this is working on my group project and like being in different classes I worked with a nontraditional student and she is the same age as my mom or maybe a little bit older and I kind of had this idea that oh, nontraditional students are kind of annoying; they have the big backpacks and they ask all the annoying questions in class and where do they fit on campus, and they always are whiny and always seem a little bit lost. And just being able to work with a nontraditional student one-on-one and helping her a lot, and she helped me a lot, and so I think that was just one bias I was able to overcome and just learn from, she is amazing, and now I look at nontraditional students as they have a very key role here on campus. So I think that's one of the things I gained. Sometimes you have to walk a mile in someone else's shoes to see what your prejudices are, and how biases play

into everything, and I think that once you recognize your biases then you're able to move on and work together and collaborate. That's probably the biggest thing I'll remember about this semester, just learning there's different people out there. (3)

- I remember filling out that survey at the beginning of the semester and thinking about some things like I am a very passive person, I don't want to step on any toes. I like to be the one in the group that makes sure that everyone bonds together, you know, if someone doesn't like someone else I try to mend the relationship and make everyone happy, and so that has been always my growing up role . . . and just in the past couple of weeks, having to deal with people that are not happy and satisfied, and me being the person that has to make the decision . . . you can't be as passive as I'd like to be . . . I've had to refocus to where my attention needs to be . . . Now instead of being a passive person I'm more of an aggressive person. (4)
- Beforehand, I was like, this is who I am, I'm set, and this is how I am going to be the rest of my life, and I think now my identity is more of, I have come to the conclusion that I am still growing, I am still becoming a person, I am still developing, and so I still need to be open minded on how I can become the best person I can possibly be. So I think I have opened up to accept maybe, criticism and different values and beliefs and kind of test it out and see if it is something that works for me or if it is something that doesn't work for me. It's not necessarily a complete 180 or anything like that with my identity, but I think my identity has opened up to be where I understand now that my identity is still changing. I am still an evolving person. I am only 21, almost 22. I am still growing. I am still developing. I am still trying to figure out who I am and where I fit in life. (7)
- I think the whole evolution of becoming open minded was a monumental change, but I think that it happened so much progressively along the way . . . it just slowly happened and I didn't really think about it. Then, when you sit back and you observe, this is how I used to be back in high school, and this is how I used to be my freshman year, and this is how I used to be a week ago, and so I think that those kinds of things, it wasn't just wham bam, next day . . . Looking back, becoming open minded was, I think, a great thing . . . It's really made me who I am today . . . But it wasn't a huge change like one day I woke up, and so, just looking back I think it was just something like that. Just the little things along the way, just having to deal with someone, having to call someone, you know, confronted with this problem, we need a solution now, and just being put in a situation like I can't consult as many sources as I'd like to . . . Just little things along the way that have kind of bounced me like a pinball back and forth, and kind of shaped me, I guess kind of like a boulder rolling down a hill. The rock's kind of lopsided, and it's got rough sides, and as you're just hitting and facing opposition and facing challenges, you just knock off little sides and corners and become . . . I'm still lopsided, but it's rolling a little faster, I think, down the hill. (9)

From these representative statements, it is evident that David has strong goals and direction in life. He enjoys being challenged, and welcomes opportunities to learn and grow. Key statements seem to provide supporting evidence of some increased open-mindedness. He has begun to challenge some of his assumptions.

Roy. Through this interview Roy (a 23-year-old junior biology education major) described his challenges with extensive involvement, including serving on the Student Activities Board, running for student government office (vice president, which he won), working a lot, and being in and out of the hospital. Some of his representative statements include:

- I took a (student activities) programming class. One of the things we learned about was programming biases and belief windows, and how sometimes when we are in a leadership position our own desires can come in . . . This is a class that made me explore what everybody wants and needs; the fact that everybody out there has different views and I need to see a broader scope and that there are other viewpoints than myself. (3)
- Another experience I had if I could share it? We had a gentleman named Ron Jeremy come to this school this year as you know [to participate in a debate about pornography] and that was something that challenged a lot of things that I believed. That was a good learning experience for me because it was probably something that I was in contrast to but it was something for the rest of the campus. And, um, I voiced my opinion but the majority of the board really wanted this event . . . so it was kind of a risk and it was kind of a gamble and when they said to go for it instead of against it I kind of jumped on board and so we put this on and I can just remember how big of a challenge it was. People in my church had a different belief . . . People would say that I was being two-faced and say that I was being a bad member of the church . . . It was really difficult for me to justify and it really opened my eyes. At the same time there were these people who we didn't see at any of the other events the entire year except this one. But that was a really big learning experience for me, and I was right in the middle of it, um, but to do it all over again I would have to think about it in a different way. (3)
- Some of the people in my group, one of them was my friend, but the rest were different and when it got hard to work with, you know, some of them got a little hard to work with, it made me think is that a problem with me? Is it something I can fix? And things like, again, just hearing multiple perspectives, seeing other people around me, learning about different values, it kind of challenges my way of my thinking. It makes me ask myself where I am at in

each of those areas, and makes me question myself and I personally took a lot of that in my experiences. (3)

- Whenever I have a hard time I remember how Abraham Lincoln tried to kill himself twice and had nervous breakdowns and just really struggled with these kinds of things, but he was a great person. (7)

From these representative statements, it is evident that Roy has begun to critically reflect upon his life. Key statements seem to provide supporting evidence of meeting some of the identified conditional thresholds for transformative learning.

Pam. Through this interview Pam (a 22-year-old junior communication major) described trying to adjust back to a normal life after she survived a serious car accident. Some of her representative statements include:

- I might hold the door open for a man and he will stop and insist that I go, and I am just like, I am already opening the door, and he won't walk in until I walk through the door. I don't know if that is an age thing or not. (3)
- It's kind of unfair to be baptized when you're eight and you don't know anything about life. I don't know if I agree with that. Just being spiritual and not having a religion, I don't need a religion. (3)
- My memories have changed since the accident. I have had to have you repeat questions. There is a lot of clutter up there.

From these representative statements, it is evident that Pam has begun to critically reflect upon her life. Key statements seem to provide supporting evidence that she is beginning to challenge her own assumptions. However, it is also evident that she is struggling to adjust to how her mental capacities were altered from her accident.

Categorization of Dialogue in Interviews

Phenomenologists describe a simplification of the process of transformation through a description of three stages (Wildemeersch & Leirman, 1988, in Mezirow 1991a, pp. 161-162):

1. Self-evident lifeworld ("mindlessness" as evidenced by narrative dialogue)
2. Threatened lifeworld (disorientation as evidenced by transactional dialogue)
3. Transformed lifeworld ("mindfulness" as evidenced by discursive dialogue)

Table 13 categorizes each student within each of these stages, according to the researcher's interpretation of their types of dialogue during the post-Academy interviews.

Table 13

Categorization of Participant Dialogue within Three Stages of the Process of Transformation

Participant	Narrative Dialogue: Evidence of a Self-Evident Lifeworld (habitual action, accepting received knowledge, mindlessness)	Transactional Dialogue: Evidence of a Threatened Lifeworld (disorientation, challenging assumptions through critical reflection, beginning to emerge from mindlessness into mindfulness)	Discursive Dialogue: Evidence of a Transformed Lifeworld (transformed view, creating constructed knowledge, mindfulness)
TOM		Transactional →	→ Discursive
TAMMY	Narrative →		
DIANE	Narrative		
<i>STEVE*</i>	<i>Narrative</i>		
<i>KATHY*</i>	<i>Narrative</i>		
TERI	--	--	--
<i>SHARON*</i>		<i>Transactional →</i>	<i>→ Discursive</i>
JEN		→ Transactional	
<i>DAVID*</i>	<i>Narrative</i>		
ROY		→ Transactional	
<i>PAM*</i>	<i>Narrative →</i>	<i>→ Transactional</i>	

(*The five participants who completed the *Leadership Academy* are indicated in *italic*)

(→ An arrow indicates “bridging” and movement between stages)

Note that those who completed the Leadership Academy (in *italic* type) as well as those who did not complete the Academy, were represented across all three stages. Their

statements about their life experiences, as described in the interviews, led to their categorization in one of these stages. Arrows (→) were placed if evidence seemed to show that an individual was beginning to “bridge” from one stage to the next, and/or had just begun to realize the transition into a new stage.

The terms *mindlessness* and *mindfulness* help to describe the first and third stages of transformation. Mezirow (1991a) describes the transition from *mindlessness* to *mindfulness* as transformative and emancipatory:

Habitual action is called “mindlessness” by psychologist Ellen Langer (Yussen, 1985, pp. 267-285), who defines this term as a routine reliance on categories and distinctions already formed. She contrasts this approach with “mindfulness,” or being fully engaged in making distinctions and creating categories. Mindfulness is described as being aware of content and multiple perspectives. It is what transformation theory calls reflective action. Behavior based on mindlessness is rigid and rule governed, while that based on mindfulness is rule guided. (p. 114)

A synopsis of the researcher’s reasoning that led to the stage categorizations in Table 13 follows (with students who completed the Leadership Academy in *italic*).

Tom. From transactional dialogue and threatened lifeworld toward discursive dialogue and transformed lifeworld: confronts his past history of hedonistic short-term goals, now developing worthwhile long-term life goals, questions social assumptions, organizes drum circles and interpretive dance performances. Through the interview about his lived life experiences, he seems to provide evidence in the four key areas that Mezirow (2000) says is necessary for transformative learning to occur as evidenced in Appendix F: 6) dialectical (outer) process, 7) reflective (inner) process, 9) making public, primarily for ourselves, the historical dimensions of our dilemma, and 10) confronting our dilemma as a difficulty to be worked through.

Tammy. Narrative dialogue and self-evident lifeworld: speaks of her Greek friends as kids and the things they do socially to constantly stay busy. States how she thinks about why she is who she is, and is aware that she is becoming an adult, so she may be about to bridge to transactional dialogue and a threatened lifeworld.

Diane. Narrative dialogue and self-evident lifeworld: very focused on graduate school goals, staying at home and studying. Is “recoiling” and in retreat mode, due to some recent difficult and emotional private issues.

Steve. *Narrative dialogue and self-evident lifeworld: straightforward descriptions of learning and adapting to challenging situations, including the recognition that people don't always think on the same level that you do. He gave no indication of any disorienting dilemma or reflecting on his assumptions..*

Kathy. *Narrative dialogue and self-evident lifeworld: straightforward descriptions of busy campus involvement and academic challenges. She gave no indication of any disorienting dilemma or reflecting on her assumptions.*

Teri. The only student who did not complete the interview.

Sharon. *From transactional dialogue and threatened lifeworld toward discursive dialogue and transformed lifeworld: shared history about abusive marriage and divorce, returning to college after many years (33!). Also described strong self-examination and re-orientation about how she perceives the world, her values and her identity. Through the interview about her lived life experiences, she seems to provide evidence in the four key areas that Mezirow (2000) says is necessary for transformative learning to occur as evidenced in Appendix F: 6) dialectical (outer) process, 7) reflective (inner) process, 9)*

making public, primarily for ourselves, the historical dimensions of our dilemma, and 10) confronting our dilemma as a difficulty to be worked through.

Jen. Transactional dialogue and threatened lifeworld: strong evidence of emerging disorientation and challenging her assumptions. She was paired with Tom and Roy on the community service project, and had significant difficulty with their divergent approaches.

David. *Narrative dialogue and self-evident lifeworld: clear descriptions of life direction and goals and how he deals with challenges to his thinking. Despite spending two years on a religious mission in Mongolia, there is little if any indication of disorientation to his values and identity. He states that he is becoming more open-minded but his lifeworld is not threatened by it at this time.*

Roy. Transactional dialogue and threatened lifeworld: evidence of critically reflecting on his assumptions, and challenging assumptions about his values and identity. He was paired with Tom and Jen on the community service project, and had significant difficulty with their divergent approaches.

Pam. *From narrative dialogue and self-evident lifeworld toward transactional dialogue and threatened lifeworld: describes how she is still recuperating from a devastating car accident that caused brain damage. There is some evidence of her reflecting on assumptions and beginning to experience disorientation to her values and identity.*

Analysis of Mixed Methods Findings

Significant findings from the quantitative measures (*Developmental Advising Inventory* and *Leadership Knowledge Survey*) and qualitative measures (interview) were

analyzed and correlated among and between participants. Significant quantitative findings were defined as being the highest or lowest score in any category, increases or decreases of at least two scores (on scales of 1-4) which showed a reversal in agreement between the pre- and post-test assessments, and specific indications of transformative learning and/or meeting conditions necessary for transformative learning.

Findings for Steve

Developmental advising inventory self-assessment results for Steve.

- * Highest pre-test (46) and post-test (50) score in *Intellectual* dimension
- * Tied for highest pre-test (48) score in *Physical* dimension
- * Highest post-test (48) score in *Emotional* dimension
- * Lowest pre-test (37) score in *Cultural* dimension
- * Possibly lowest post-test (37-40) score in *Spiritual* dimension (failed to respond to one of the post-test questions in this dimension, so his score is represented to reflect the range of his possible post-test score)
- * Second highest increase (+16 to +19) in total individual change within the nine dimensions (failed to respond to one of the post-test questions, so his score is represented to reflect the range of his possible scores)
- ** Scores increased two levels (2/4) between the pre-test and post-test on two items within the *Emotional* dimension:
 - 64. I accept my mistakes without intense frustration or aggression.
 - 66. I do not worry about my decisions after they are made.
- ** Scores decreased two levels (4/2) between the pre-test and post-test on one item in the *Cultural* dimension:

97. I have attended a party or meeting where I was a minority.

** Scores increased two levels (2/4) between the pre-test and post-test on one item within the *Spiritual* dimension:

111. I have thoughtfully evaluated theories of creation and evolution

** Scores decreased two levels (4/2) between the pre-test and post-test on two items in the *Spiritual* dimension:

115. I am comfortable with my beliefs on life, death, and life after death

120. I live according to my beliefs about the existence of a Supreme Being

** Scores increased two levels (1/3) between the pre-test and post-test on one item within the *Political* dimension:

125. I discuss major Supreme Court decisions with my friends

Leadership Knowledge Survey results for Steve

* Highest post-test (68) individual total score

* Tied for highest increase (+18) between pre-test and post-test total individual score

** Scores increased two levels (2/4) between the pre-test and post-test in two categories: *Situational leadership* and *Lifelong learning*

Interview Results for Steve

Perspective transformation conditions checklist—He gave no indication of any significant disorientation or critical reflection on his assumptions that could lead toward transformative learning and perspective transformation.

Categorization of dialogue within three stages of the process of transformation--
Based purely upon his comments during the interview, he mainly seemed to give a narrative description of a self-evident lifeworld.

Analysis of Mixed Methods Findings for Steve

Steve self-reported the highest leadership knowledge score of any of the *Leadership Academy* participants in the post-test of the *Leadership Knowledge Survey*. He scored 68 out of a possible 72. He also tied for the highest increase (+18) between pre-test and post-test total individual scores, which gives some indication that he believed that his leadership knowledge had increased at the conclusion of the *Leadership Academy*.

The *Developmental Advising Inventory* revealed some significant disorientation in his thinking regarding the *Spiritual* dimension that was not reflected in his interview. Based upon his significant increase (+2) in thoughtfully evaluating theories of evolution and creation (item 111) and his significant decreases (-2) in his comfort with beliefs about life, death, and life after death (item 115) and living according to his beliefs about the existence of a Supreme Being (item 120), it is evident that he had experienced a significant disorientation and may have reflected upon his assumptions in his spiritual life. Steve may not have discussed this in the interview because he may not have felt it was relevant within the context of the Leadership Academy. Nonetheless, this is a significant finding about transformative learning from the quantitative measures that did not emerge through the qualitative measures.

Based upon this significant set of quantitative findings from the DAI in the Spiritual dimension, the researcher would change the categorization of Steve from

narrative dialogue and self-evident lifeworld (mindlessness) toward transactional dialogue and threatened lifeworld (disorientation, challenging assumptions through critical reflection, and beginning to emerge from mindlessness into mindfulness). Transformative learning may about to be fitting into his experience.

Findings for Kathy

Developmental Advising Inventory self-assessment results for Kathy

- * Lowest pre-test (35) and post-test (41) scores in *Intellectual* dimension
- * Lowest post-test (41) score in *Life Planning* dimension
- * Lowest pre-test (42) and post-test (40) scores in *Social* dimension
- * Lowest pre-test (42) and post-test (42) scores in *Physical* dimension
- * Lowest pre-test (37) and post-test (40) score in *Emotional* dimension
- * Lowest post-test (45) score in *Sexual* dimension
- * Lowest post-test (41) score in *Cultural* dimension
- * Lowest pre-test (41) and post-test (39) score in *Spiritual* dimension
- * Lowest pre-test (35) and post-test (36) score in *Political* dimension
- * Smallest change overall (-2) in total individual change
- * Largest decrease (-4) in *Cultural* dimension (items on *tolerance*)
- * Tied for largest decrease (-2) within the Political dimension (items about *Leadership and Service*)
- ** Score increased two levels (1/3) between the pre-test and post-test on one item within the *Political* dimension (on *Learning the System*):

128. I know the names of my legislators and student government president

Leadership Knowledge Survey results for Kathy

- * All scores stayed the same or increased by one level (+1) between the pre-test and post-test
- * Had the lowest increase (+14) between the pre-test and post-test for total individual scores among those who completed the *Leadership Academy*

Interview Results for Kathy

Perspective transformation conditions checklist—From her representative statements, she did not indicate that she has experienced any disorientation in her perspective.

Categorization of dialogue within three stages of the process of transformation—Based upon her comments during the interview, she seemed to give a narrative description of a self-evident lifeworld.

Analysis of Mixed Methods Findings for Kathy

Kathy had the lowest increase (+14) between pre-test and post-test total individual scores in the *Leadership Knowledge Survey* among those who completed the *Leadership Academy*, but still had a higher score than those who did not complete the *Leadership Academy*. Her increase of +14 within 18 categories gave some indication that she believed that her leadership knowledge had increased at the conclusion of the *Leadership Academy*.

As an incoming freshman, Kathy is extremely involved in activities and dedicated to her studies. She did not indicate any disorientation and appears to be well situated within a self-evident lifeworld. Transformative learning is not fitting into her experience at this time.

Findings for Sharon

Developmental Advising Inventory self-assessment results for Sharon

- * Highest post-test (55) score in *Life Planning* dimension
- * Highest post-test (53) score in *Physical* dimension
- * Highest pre-test (46) and post-test (54) scores in *Sexual* dimension
- * Highest post-test (59) score in *Cultural* dimension
- * Highest post-test (59) score in *Spiritual* dimension
- * Highest post-test (51) score in *Political* dimension
- * Highest increase (+69) in total individual change within the nine dimensions
(out of 135 total items)
- * Highest increases in pre-test to post-test scores in 8 of 9 dimensions (all
except *Intellectual*, where she tied for second)

Leadership Knowledge Survey results for Sharon

- * Tied for highest increase (+18) between pre-test and post-test total individual
score
- ** Scores increased two levels (1/3) between the pre-test and post-test in two
categories: *Leadership styles* and *Situational leadership*
- ** Scores increased two levels (2/4) between the pre-test and post-test in four
categories: *Risk taking*, *Delegation*, *Initiative*, and *Lifelong learning*.

Interview Results for Sharon

Perspective transformation conditions checklist—Sharon shared the history about her abusive marriage and divorce, and returning to college after 33 years. Also described strong self-examination and re-orientation about how she perceives the world, her values

and her identity. Through the interview about her lived life experiences, she seems to provide evidence in the four key areas that Mezirow (2000) says is necessary for transformative learning to occur as evidenced in Appendix F: 6) dialectical (outer) process, 7) reflective (inner) process, 9) making public, primarily for ourselves, the historical dimensions of our dilemma, and 10) confronting our dilemma as a difficulty to be worked through.

Categorization of dialogue within three stages of the process of transformation—Based upon her comments during the interview, Sharon gave some indication of movement from disorientation, challenging assumptions through critical reflection, and beginning to emerge from mindlessness into mindfulness (transactional dialogue and threatened lifeworld) toward mindfulness (discursive dialogue and transformed lifeworld).

Analysis of Mixed Methods Findings for Sharon

Sharon self-reported the highest increase (+69) between pre-test and post-test total individual scores in the *Developmental Advising Inventory*, which gives some indication that she believed that she experienced personal development during the semester. She tied for the highest increase (+18) between pre-test and post-test total individual scores, which gives some indication that she believed that her leadership knowledge had increased at the conclusion of the *Leadership Academy*.

Through the representative statements from her interview, Sharon seemed to give evidence of a transformed lifeworld. Mezirow's original 1975 research on perspective transformation provided a focus on women who were returning to college after many years. Sharon seemed to fit the mold very well as she shared a similar life situation. She

seemed to be experiencing a transformation in her perspective, identity, and emancipatory agency. Transformative learning is fitting into her experience.

Findings for David

Developmental Advising Inventory self-assessment results for David

- * Tied for highest pre-test (46) score in *Intellectual* dimension
- * Tied for highest pre-test (54) score in *Life planning* dimension
- * Highest post-test (54) score in *Social* dimension
- * Highest pre-test (48) score in *Emotional* dimension
- * Highest pre-test (51) score in *Cultural* dimension
- * Highest pre-test (55) score in *Spiritual* dimension
- * Largest decrease (-9) between pre-test and post-test total individual score
- * Largest decrease (-3) between pre-test and post-test in *Emotional* dimension
- ** Scores increased two levels (1/3) between the pre-test and post-test on one item within the *Political* dimension (items on Learning the System):

123. I have read the statement of *Student Rights and Responsibilities*

Leadership Knowledge Survey results for David

- * Tied with one other for second highest increase (+17) between the pre-test and post-test for total individual score
- ** Scores increased two levels (2/4) between the pre-test and post-test in three categories: *Leadership styles*, *Ethics and character*, and *Lifelong learning*

Interview Results for David

Perspective transformation conditions checklist-- From his representative statements, David did not indicate that he has experienced any disorientation in his perspective.

Categorization of dialogue within three stages of the process of transformation— Based upon his comments during the interview, David mainly seemed to give a narrative description of a self-evident lifeworld. He gave no indication of any significant disorientation that could lead toward transformative learning and perspective transformation.

Analysis of Mixed Methods Findings for David

David tied for the second highest increase (+17) between pre-test and post-test total individual scores in the *Leadership Knowledge Survey*, which gives some indication that he believed that his leadership knowledge had increased at the conclusion of the *Leadership Academy*.

David gave clear descriptions of life direction and goals and how he deals with challenges to his thinking. Despite spending two years on a religious mission in Mongolia, there is little if any indication of disorientation to his values and identity. He states that he is becoming more open-minded but his lifeworld is not threatened by it. Transformative learning is not fitting into his experience at this time.

Findings for Pam

Developmental Advising Inventory self-assessment results for Pam

- * Lowest pre-test (35) score in *Life Planning* dimension
- * Highest pre-test (56) score in *Social* dimension

- * Tied for highest pre-test (48) score in *Physical* dimension
- * Highest pre-test (57) score in *Sexual* dimension
- * Highest pre-test (47) score in *Political* dimension
- * Second largest decrease (-5) between pre-test and post-test total individual score
- * Largest decrease (-1) in total individual score in *Intellectual* dimension
- * Largest decrease (-2) in total individual score in *Political* dimension
- ** Score increased two levels (2/4) between the pre-test and post-test on one item within the *Political* dimension:

122. I try to make an impact in solving campus or community problems

Leadership Knowledge Survey results for Pam

- * Tied with one other for second highest increase (+17) between the pre-test and post-test for total individual score
- ** Scores increased two levels (1/3) between the pre-test and post-test in one category: *Goal setting*
- ** Scores increased two levels (2/4) between the pre-test and post-test in one category: *Delegation*
- ** Scores decreased one level (4/3) between the pre-test and post-test in one category: *Teamwork* (This was the only decrease between the pre-test and post-test scores in any *Leadership Knowledge Survey* category by any of the students who completed the Leadership Academy)

Interview Results for Pam

Perspective transformation conditions checklist— From her representative statements, Pam indicated that she has experienced some critical reflection on her assumptions, and some disorientation in her perspective.

Categorization of dialogue within three stages of the process of transformation— Based upon her comments during the interview, she mainly seemed to give a narrative description of a *self-evident lifeworld, moving toward a transactional dialogue and threatened lifeworld*: She gave some indication of disorientation that could lead toward transformative learning and perspective transformation.

Analysis of Mixed Methods Findings for Pam

Pam self-reported the second largest decrease (-5) between pre-test and post-test total individual scores in the *Developmental Advising Inventory*, which gives some indication that she believed that she decreased in her personal development during the semester. However, since her scores decreased from 433 to 428 on 135 items on the DAI, that represented only slightly more than a 1% change.

Pam tied for the second highest increase (+17) between pre-test and post-test total individual scores in the *Leadership Knowledge Survey*, which indicates that she believed that her leadership knowledge had increased at the conclusion of the *Leadership Academy*.

Pam described how she is still recuperating from a devastating car accident that caused brain damage. There is some evidence of her reflecting on assumptions and experiencing disorientation to her values and identity. Transformative learning may be beginning to fit into her experience.

Findings for Research Sub-Questions

In this research project, to support the grand tour question “How does transformative learning fit into the experience of college students who are engaged in a semester-long leadership academy at a mid-sized western regional university?” four sub-questions were investigated. These sub-questions are addressed next.

Sub-Question One: Quantitative Measures

The first sub-question asked, “Is there a relationship between *developmental self-assessment* quantitative measures (within the nine dimensions of the *Developmental Advising Inventory*, and 18 topic areas within the *Leadership Knowledge Survey*) among and between participants in this study?”

Developmental Advising Inventory. The *DAI* findings indicated a wide range of differences between the pre- and post-test. The *DAI* scores changed by different amounts in each dimension. As shown in Table 14, group change within the nine dimensions of the *DAI* showed mostly positive increases, although two categories had decreases (overall change between pre-test and post-test scores for all five participants who completed the *Leadership Academy*). These are represented in Table 14 in rank order from greatest increase to greatest decrease.

However, as Table 14 also shows, Sharon accounted for the largest increases in eight of the nine dimensions. If her increases were removed, the group increased in only three of the nine dimensions, with no overall change in two of the dimensions, and decreases in the other four dimensions. Sharon’s high scores skewed the group results.

Table 14

Developmental Advising Inventory Overall Group Change by Category (including largest individual changes, and group change without largest individual changes)

DAI Dimension	Group change between pre-and post-test	Individual changes between pre-test and post-test	Group change between pre-and post-test without largest individual changes
Life Planning	+21	Sharon had largest increase in this category with +12	+9
Intellectual	+18	Kathy had largest increase in this category with +6	+12
Cultural	+10	Sharon had largest increase in this category with +10	0
Political	+10	Sharon had largest increase in this category with +8	+2
Social	+6	Sharon had largest increase in this category with +9	-3
Emotional	+6	Sharon had largest increase in this category with +6	0
Physical	+3	Sharon had largest increase in this category with +7	-4
Sexual	-3	Sharon had largest increase in this category with +8	-11
Spiritual*	-3 to -6	Sharon had largest increase in this category with +5	-8 to -11

(* One participant, Steve, failed to respond to one of the post-test questions in the *Spiritual* dimension, so overall scores in that dimension are represented to reflect the range of his possible post-test score choices of 1-4 for that item)

In Table 15, individual overall change in DAI scores is represented. The DAI has 15 self-assessment items in each of nine dimensions, which totals 135 self-assessment items. Since each item could be scored on a range of one to four, scores could range from a possible low of 135 to a possible high of 540.

Table 15

Individual Overall Change in the Developmental Advising Inventory

Participant	DAI pre-test score and average score	DAI post-test score	Change between pre- and post-test	Individual changes between pre-test and post-test scores
Sharon	407	476	+69	Increased in every category, ranging from +4 in <i>Intellectual</i> to +12 in <i>Life Planning</i>
Steve	404	420-423*	+16 to +19*	Increased in six categories, no change in one category, with decreases in two categories
Kathy	367	365	-2	Increased in three categories, no change in one category, with decreases in five categories
Pam	433	428	-5	Increased in two categories, with decreases in seven categories
David	453	444	-9	Had no change in four categories, with decreases in five categories

(* Steve failed to respond to one of the post-test questions in the *Spiritual* dimension, so overall scores in that dimension are represented to reflect the range of his possible post-test score choices of 1-4 for that item)

Two participants had overall increases, ranging from +16 to +69. Three of the participants had overall decreases, ranging from -2 to -9. The two large increases may have been due to increased levels of confidence or increased awareness of the topics. Decreases may have been due to more realistic self-assessments after initially high pre-test scores, or may have emerged from frustrations that may have occurred during experiential projects during the semester, or due to some other unrelated or unexplained factors.

Table 15 shows that Sharon had the third highest pre-test score, but the largest change (an increase of +69) between pre- and post-test, which resulted in the highest

post-test score. Sharon reported increases in each of the nine dimensions, and was also the only participant to have no decreases in any of the dimensions.

Leadership Knowledge Survey. The findings within the *Leadership Knowledge Survey* showed the most consistent overall increases among participants within this research study, with overall increases of +14 to +18 in the 18 categories. There were, however, significant differences within the different categories.

There was a substantial upward trend among all of the research participants between their pre-test and post-test responses in the *Leadership Knowledge Survey*, which measured their perceptions about their leadership knowledge before and after the *Leadership Academy*. In Table 16, group change within the 18 categories of the *LKS* showed positive increases (overall group change between pre-test and post-test scores for all five participants who completed the Leadership Academy) in rank order from greatest to least increase. Significant increases (+2 levels between pre- and post-tests) were recorded in half of the categories (9 of 18).

Table 17 shows individual changes in *LKS* scores. Sharon had significant increases (+2) in six categories, Pam in four, David in three, Steve in two. Pam had the only decrease between pre-test and post-test scores, which was in the category of *Teamwork* (as shown in Table 16).

Note that the highest increases between pre- and post-test scores (+14 to +18) were recorded by those who completed the *Leadership Academy*. As previously shown in Table 11, the two participants who did not complete the Leadership Academy but did complete the *Leadership Knowledge Survey* (Jen and Roy) also had significant increases

Table 16

Leadership Knowledge Survey Overall Group Change by Category (including significant increases by individuals)

Leadership Knowledge Category	Group change between pre-test and post-test	Significant individual changes between pre-test and post-test
Lifelong Learning	+8	Steve, Sharon, and David had increases from 2/4
Leadership styles	+7	Sharon had increase from 1/3, David had increase from 2/4
Situational leadership	+6	Steve had increase from 2/4, Sharon had increase from 1/3
Delegation	+6	Sharon and Pam had increases from 2/4
Goal setting	+5	Pam had increase from 1/3
Risk taking	+5	Sharon had increase from 2/4
Identifying strengths in others	+5	Everyone in group went up +1
Ethics and character	+5	David had increase from 2/4
Initiative	+5	Sharon had increase from 2/4
Social change	+5	Everyone in group went up +1
Global perspectives	+5	Everyone in group went up +1
Goal setting	+4	Pam went up from 1/3
Values	+4	Some increased +1, some stayed the same
Conflict management	+4	Some increased +1, some stayed the same
Teamwork	+3	Pam had only decrease of any participant in any category, 4/3
Community service	+3	Some increased +1, some stayed the same
Decision making	+2	Some increased +1, some stayed the same
Attitude	+2	Some increased +1, some stayed the same

Table 17

Individual Change between the Pre- and Post-test on the Leadership Knowledge Survey

Participant	LKS pre-test score	LKS post-test score	Change between pre- and post-test	Individual changes between pre-test and post-test scores
Steve	50	68	+18	Increased by two scores (+2) in two of the 18 categories, with increases in 16 of the 18 leadership knowledge categories
Sharon	42	60	+18	Increased by two scores (+2) in six of the 18 categories, with increases in 12 of the 18 leadership knowledge categories
David	43	60	+17	Increased by two scores (+2) in three of the 18 categories, with increases in 14 of the 18 leadership knowledge categories
Pam	44	61	+17	Increased by two scores (+2) in two of the 18 categories, with increases in 16 of the 18 leadership knowledge categories, and had the only decrease
Kathy	49	63	+14	Increased by one or stayed the same in all of the 18 categories, with increases in 14 of the 18 leadership knowledge categories

(+11 to +12), but their increases were not as large as those who completed the Academy.

Jen had an overall increase of +12 (44 to 56), while Roy recorded an increase of +11 (45 to 56).

Table 18 compares the results between participants who completed both of the quantitative measurements, the *Developmental Advising Inventory (DAI)* and the *Leadership Knowledge Survey (LKS)*. As mentioned previously, the change in the *DAI* had much more significant differences among participants, while the change in scores was much more consistent within the *LKS*.

Table 18

*Comparison of Results among and between Participants who Completed both
Quantitative Measurements*

	Change in DAI	Change in LKS
Sharon	+69	+18
Steve	+16 to +19	+18
Kathy	-2	+14
Pam	-5	+17
David	-9	+17

When comparing the scores between the two instruments, Sharon had the highest increase in score for the *DAI*, and tied for the highest increase in score within the *LKS*. Steve, who had the second highest score increase within the *DAI*, tied for the highest increase within the *LKS*.

The other three participants who completed both of the quantitative measures (Kathy, Pam, and David), had changes in scores within the *LKS* that were clustered close to Sharon and Steve. However, the change in their *DAI* scores, while clustered together to each other, were significantly different (decreased scores) from Sharon and Steve (increased scores).

Sub-Question Two: Qualitative Measures

The next sub-question asked “How do the research participants describe their *lived experiences* of key aspects of transformative learning and perspective transformation?” Participants in this study had their interview responses about their lived

experiences analyzed in two ways. The results of this analysis are presented in Tables 19 and 20.

Table 19

Nominal Tabulation of Group Responses to 10 Interview Questions (see Appendix M)

Interview Question	Majority of Group Responses	Minority of Group Responses
1. What stands out this semester?	A variety of responses	--
2. See self differently?	9 of 10 said yes	Tammy said no
3. New ways to think or act?	8 of 10 said yes	Diane and Pam said no
4. Critically examined values?	8 of 10 said yes	Tammy and Kathy said no
5. Critically examined knowledge?	9 of 10 said yes	Diane said no
6. Critically examined your identity?	9 of 10 said yes	Tom said no
7. Experienced disorientation?	6 of 10 said no	Tom, Diane, Sharon and Pam said yes
8. Incremental change or fundamental?	All 10 said some kind of change	--
9. Experiencing different views?	All 10 said yes	--
10. Anything else?	A variety of responses	--

While the quantitative, nominal comparison of responses in the table doesn't give much insight into the potential for transformative learning, it does show how the responses compared within the group. A narrative description about the pattern of group responses follows.

1. What stands out for you about the semester? A variety of responses. This was such an open-ended question, the respondents followed many different

paths to respond, which they did with whatever was at the top of their consciousness.

2. See self differently? 9 of 10 said yes. Tammy said no (“probably not different ways”).
3. New ways to think or act? 8 of 10 said yes. Diane and Pam said no. Diane had experienced a personal trauma earlier in the semester, and Pam was recovering from a car accident that left her with brain damage, which may have influenced their responses.
4. Critically examined values? 8 of 10 said yes. Tammy and Kathy said no, which reinforced that they had not experienced much critical reflection on their assumptions.
5. Critically examined knowledge? 9 of 10 said yes. Diane said no. Again, she had experienced some personal trauma and was mainly focused on just getting her work done.
6. Critically examined your identity? 9 of 10 said yes. Tom said no, but he also spoke extensively about his former self, and at one point said “I hated the way I was” which fits Mezirow’s second phase of perspective transformation (“self-examination with feelings of guilt or shame”).
7. Experienced disorientation? 6 of 10 said no. Tom, Diane, Sharon and Pam said yes. Tom presumably was experiencing some disorientation due to his critically reflecting upon assumptions. Diane and Pam were probably referring to personal trauma in their lives. Sharon mainly spoke about being

literally lost and disoriented, and having a difficult time finding her way around campus in her first year back in school.

8. Incremental change or fundamental? All 10 said they had experienced some kind of change. It was difficult for some of them to identify the extent or degree of the change. Three specifically mentioned big or fundamental change, two said little or incremental change, one said a little of both, and the others did not directly choose either, but rather simply talked what kind of change they had experienced.
9. Experiencing different views? All 10 said yes. The nature of education is change, and everyone described how they had experienced different views in some way.
10. Anything else? A variety of responses.

Earlier, in Table 13, the life experiences of each participant were categorized into one of three stages of transformative learning, based on their dialogue in response to the 10 questions. Based on their type of dialogue, as was previously described in Chapter III, each participant was placed within one of these three stages:

1. Self-evident lifeworld (“mindlessness” as evidenced by narrative dialogue)
2. Threatened lifeworld (disorientation as evidenced by transactional dialogue)
3. Transformed lifeworld (“mindfulness” as evidenced by discursive dialogue)

Because 10 of the 11 students who began the Leadership Academy participated in the post-Academy interviews, the researcher was able to categorize all of their responses, regardless of whether they completed the Leadership Academy. The findings of these categorizations was previously described in chapter three, but are presented in Table 20,

Table 20

*Categorization of Participant Dialogue within Three Stages of the Process of**Transformation (grouped by Academy graduates and non-graduates)*

Participant	Narrative Dialogue: Evidence of a Self-Evident Lifeworld (habitual action, accepting received knowledge, mindlessness)	Transactional Dialogue: Evidence of a Threatened Lifeworld (disorientation, challenging assumptions through critical reflection, beginning to emerge from mindlessness into mindfulness)	Discursive Dialogue: Evidence of a Transformed Lifeworld (transformed view, creating constructed knowledge, mindfulness)
<i>Academy graduates*</i>			
<i>SHARON*</i>		<i>Transactional →</i>	<i>→ Discursive</i>
<i>PAM*</i>	<i>Narrative →</i>	<i>→ Transactional</i>	
<i>STEVE*</i>	<i>Narrative</i>		
<i>KATHY*</i>	<i>Narrative</i>		
<i>DAVID*</i>	<i>Narrative</i>		
Non-graduates			
TOM		Transactional →	→ Discursive
JEN		→ Transactional	
ROY		→ Transactional	
TAMMY	Narrative→		
DIANE	Narrative		
TERI	--	--	--

(*The five participants who completed the *Leadership Academy* are indicated in *italic*)

(→ An arrow indicates “bridging” and movement between stages)

grouped by Academy graduates and non-graduates. This grouping shows that their levels of transformative learning were spread out among all three stages, regardless of whether they completed the Leadership Academy.

Sub-Question Three: Qualitative Measures

Were *conditional thresholds* for transformative learning reached in different ways for different participants in this study? The following 10 conditional thresholds were identified for this comparison (see Appendix F):

1. Distortions in current meaning perspectives which cause a disorienting dilemma
2. Self-examination with feelings of fear, anger, guilt, or shame
3. Becoming critically aware of one's own tacit assumptions and expectations and those of others and assessing their relevance for making an interpretation
4. Epistemic processing and reflection when engaged in ill-structured (open-ended, divergent) problems
5. Emotional readiness
- 6.* Dialectical process (outer)
- 7.* Reflective process (inner)
8. Transforming frames of reference
- 9.* Making public, primarily for ourselves, the historical dimensions of our dilemma
- 10.* Confronting (our dilemma) as a difficulty to be worked through

(*Mezirow (1991a) says that transformative learning will only occur when these four processes (# 6, 7, 9 and 10) are evident.)

In Table 21, a nominal analysis is presented of the participant responses that showed evidence of meeting these 10 conditional thresholds. Tom showed the highest evidence of meeting these thresholds, with his interview dialogue reaching the conditional thresholds in all 10 areas. Sharon showed the second highest amount of evidence from her interview, with her dialogue reaching the conditional thresholds in six of the 10 areas. Both Tom and Sharon met the thresholds within # 6, 7, 9, and 10, which Mezirow (1991a) said were the critical thresholds for transformative learning to occur.

Steve and Pam showed the lowest evidence of these conditional thresholds being met. Their dialogue showed evidence of meeting the conditional threshold in just one of the 10 areas.

Table 21

Comparison of Interview Responses meeting Conditional Thresholds for Transformative Learning (organized from most to least thresholds met)

	1	2	3	4	5	6*	7*	8	9*	10*
Tom	X	X	X	X	X	X	X	X	X	X
Sharon	X				X	X	X		X	X
David			X	X			X		X	
Jen	X		X	X			X			
Tammy	X				X					X
Kathy			X			X				
Roy			X				X			
Diane					X					
Steve			X							
Pam			X							

Sub-Question Four: Mixed Method Measures

Can we come to a better understanding of opportunities for student transformative learning and perspective transformation by analyzing their levels of developmental self-assessment, lived experiences, and conditional thresholds? Table 22 compares the results from the quantitative and qualitative measurements.

Side by side comparisons of the mixed method findings reveal different results among and between participants. These findings could be attributed to different levels of participant experiences, but they could also be due to misinterpretations by the researcher, as the evidence is not always consistent. For example, David's dialogue

showed evidence of multiple conditional thresholds being met, but his dialogue was categorized at the lowest level of transformative learning (narrative) within Table 22.

Table 22

Comparison of Mixed Method Results between Participants who Completed All

Comparative Measurements

	Change in DAI	Change in LKS	Evidence of conditional thresholds being met	Transformative learning categorization of interview dialogue
<i>Sharon</i>	+69	+18	1, 1, 5, 6, 7, 7, 9, 10	Transactional-Discursive
<i>Steve</i>	+16 to +19	+18	3, 3, 3, 3, 3	Narrative
<i>Kathy</i>	-2	+14	3, 6	Narrative
<i>Pam</i>	-5	+17	3, 3	Narrative-Transactional
<i>David</i>	-9	+17	3, 4, 7, 9	Narrative

As another example, while the evidence in the Table 22 may support Steve being identified at the narrative stage, his responses to the DAI quantitative instrument revealed significant changes in his ways of thinking about thoughtfully evaluating theories of evolution and creation (+2), living according to his beliefs about the existence of a Supreme Being (-2) and his comfort with his beliefs about life, death, and life after death (-2). This insight shows a level of disorientation that by itself could justify a categorization of bridging into the next higher stage (narrative to transactional).

Table 23 compares evidence from the qualitative interview measures. Again, side by side comparisons of the mixed method findings reveal possible misinterpretations by the researcher, as the interpretations of evidence is not always consistent. For example,

Tammy met several of the conditional thresholds for transformative learning, but was categorized at the lowest stage (narrative). From revisiting her interview dialogue, it is

Table 23

Comparison of Qualitative Results (using the checklist for 10 threshold conditions and the categorization of dialogue for transformative learning)

	1	2	3	4	5	6*	7*	8	9*	10*	Categorization of dialogue for TL
<i>Academy Graduates</i>											
<i>Sharon</i>	X				X	X	X		X	X	T-D
<i>Pam</i>			X								N-T
<i>Steve</i>			X								N
<i>Kathy</i>			X			X					N
<i>David</i>			X	X			X		X		N
<i>Non-graduates</i>											
<i>Tom</i>	X	X	X	X	X	X	X	X	X	X	T-D
<i>Jen</i>	X		X	X			X				N-T
<i>Roy</i>			X				X				N-T
<i>Tammy</i>	X				X					X	N
<i>Diane</i>					X						N

(* N = Narrative, T = Transactional, D = Discursive)

reasonable to assume that her comments could be presenting evidence that she may be beginning to bridge to the next level (narrative to transactional).

Table 23 shows that there is some general consistency in identifying levels of transformative learning, based on a comparison of these two ways of analyzing the

interview data. Those who indicated the most evidence of meeting threshold conditions were also categorized at a higher level of transformative learning based on their dialogue.

So, based on these adjustments, Table 24 presents a new stage classification for transformative learning for the participants who completed the interview, based on the utilization of the findings from all of the mixed methods. Table 24 incorporates the upward adjustments to the three participants mentioned above: David, based on his dialogue revealing multiple conditional thresholds being met; Steve, based on the significant changes in his levels of response to *DAI* questions on spirituality; and to Tammy, who met several of the conditional thresholds for transformative learning in her interview dialogue.

Table 25 then takes this same information, but organizes it according to age rather than by group, which reveals a startling correlation pattern. The older participants showed evidence of higher stages of transformative learning. This pattern is not surprising when the literature of perspective transformation and transformative learning is recalled and reconsidered.

The transformative learning process emerged from the field of adult education. Within that field, adulthood is commonly identified as beginning around age 25. As mentioned in Chapter II, recent brain research has also identified age 25 as the approximate age when the brain has completed its initial growth and development.

So, perhaps the most critical finding from this research project is that opportunities for transformative learning were related to the age of the participants. To reinforce this finding, representative statements from the interviews have also been

arranged by age below, to show how the stages are represented from narrative to transactional to discursive.

Table 24

Adjusted Categorization of Participant Dialogue within Three Stages of the Process of Transformation (grouped by Academy graduates and non-graduates)

Participant	Narrative Dialogue: Evidence of a Self-Evident Lifeworld (habitual action, accepting received knowledge, mindlessness)	Transactional Dialogue: Evidence of a Threatened Lifeworld (disorientation, challenging assumptions through critical reflection, beginning to emerge from mindlessness into mindfulness)	Discursive Dialogue: Evidence of a Transformed Lifeworld (transformed view, creating constructed knowledge, mindfulness)
<i>Academy graduates*</i>			
<i>SHARON*</i>		<i>Transactional →</i>	<i>→ Discursive</i>
<i>PAM*</i>	<i>Narrative →</i>	<i>→ Transactional</i>	
<i>STEVE*</i>	<i>Narrative →</i>	<i>→ Transactional</i>	
<i>KATHY*</i>	<i>Narrative</i>		
<i>DAVID*</i>	<i>Narrative →</i>	<i>→ Transactional</i>	
Non-graduates			
TOM		Transactional →	→ Discursive
JEN		→ Transactional	
ROY		→ Transactional	
TAMMY	Narrative →	→ Transactional	
DIANE	Narrative		
TERI	--	--	--

(*The five participants who completed the *Leadership Academy* are indicated in *italic*)

(→ An arrow indicates “bridging” and movement between stages)

Table 25

Adjusted Categorization of Participant Dialogue within Three Stages of the Process of Transformation (grouped by age)

Age and name of Participant	Narrative Dialogue: Evidence of a Self-Evident Lifeworld (habitual action, accepting received knowledge, mindlessness)	Transactional Dialogue: Evidence of a Threatened Lifeworld (disorientation, challenging assumptions through critical reflection, beginning to emerge from mindlessness into mindfulness)	Discursive Dialogue: Evidence of a Transformed Lifeworld (transformed view, creating constructed knowledge, mindfulness)
Age 54 (SHARON)		Transactional →	→ Discursive
Age 33 (TOM)		Transactional →	→ Discursive
Age 23 (ROY)		→ Transactional	
Age 22 (JEN)		→ Transactional	
Age 22 (PAM)	Narrative →	→ Transactional	
Age 22 (STEVE)	Narrative→	→ Transactional	
Age 21 (DAVID)	Narrative→	→ Transactional	
Age 20 (TAMMY)	Narrative→	→ Transactional	
Age 19 (KATHY)	Narrative		
Age 19 (DIANE)	Narrative		
TERI	--	--	--

(*The five participants who completed the *Leadership Academy* are indicated in *italic*)

(→ An arrow indicates “bridging” and movement between stages)

Sharon, 54: I am actually considering going to a third world country for a year of teaching. (Transactional to Discursive)

Tom, 33: I don't think that there's Hell and fire and pitchforks and all that . . . I think there's positive and negative energy, and Heaven and Hell are probably just light and darkness or positive and negative, and your energy goes . . . into that. (Transactional to Discursive)

Roy, 23: Hearing multiple perspectives, seeing other people around me, learning about different values, it kind of challenges my way of thinking. (Transactional)

Jen, 22: I know that my actions and my thoughts about myself are very very unequal and that they don't match. (Transactional)

Pam, 22: It's kind of unfair to be baptized when you're eight and you don't know anything about life. I don't know if I agree with that. (Narrative to Transactional)

Steve, 22: Not everyone always thinks the same way you do and even though you may think that the way you're doing something may be the most effective way to you, maybe there's other ways as well that can lead you to the same conclusion in the same amount of time. (Narrative to Transactional)

David, 21: Just being able to work with a lot of diverse people, people I never had even associated myself with, kind of opened my horizons. (Narrative to Transactional)

Tammy, 20: I think about things before I do them now — things that might have bad consequences to them — so it has definitely made me aware that I am becoming an adult. (Narrative to transactional)

Kathy, 19: I think I have gained a lot of information, not only through my classes but also through clubs and getting to know more students, seeing more options, and trying new things. (Narrative)

Diane, 19: Everyone is in a big group studying . . . and I am just staying at home studying. (Narrative)

Chapter V

Summary, Discussion, & Recommendations

Summary

In this research project, the grand tour question was: “How does transformative learning fit into the experience of college students who are engaged in a semester-long leadership academy at a mid-sized western regional university?” While qualitative research methods are typically applied to such a phenomenological process, mixed methods were used in this study in an attempt to illuminate the phenomenon, and to help distinguish differences between informative learning and transformative learning. This was mainly based on Creswell and Plano Clark’s (2007) statement that “The combination of qualitative and quantitative data provides a more complete picture by noting trends and generalizations as well as in-depth knowledge of participants’ perspectives” (p. 33).

To answer this grand tour question, the four sub-questions of this research study helped to organize the quantitative and qualitative data, and allowed for the data to be mixed, cross-analyzed, and correlated across the measures. A summary of the methods and findings for each sub-question in the study follows.

Sub-Question One: Quantitative Measures (Developmental Self-Assessment)

Sub-question number one was: “Is there a relationship between *developmental self-assessment* quantitative measures (within the 9 dimensions of the *Developmental Advising Inventory*, and 18 topics within the *Leadership Knowledge Survey*) among and between participants in this study?”

The *Developmental Advising Inventory (DAI)*, a commercially available multi-dimensional self-assessment tool, measures student development in nine dimensions

(intellectual, life planning, social, physical, emotional, sexual, cultural, spiritual, and political) with 15 self-assessment items in each dimension, for a total of 135 responses. Using the *DAI* in this study provided some insight into how much individuals perceived that they changed and developed during the semester. The most significant changes in this instrument were increases of +2, or decreases of -2, on the self-assessment scale of 1-4 (strongly disagree to strongly agree). On this scale of 1-4, a change of +2 or -2 necessarily indicates a change between the positive *agree* and negative *disagree* vectors.

Table 3 showed that Sharon had the greatest increase between the pre- and post-assessments on the *DAI*, with an overall increase of +69. She had the highest increase of anyone in eight of the nine dimensions. However, Sharon had no significant changes of +2 or -2 in any of her responses. Her large overall increase was based on many +1 increases spread out over many of the responses.

Steve had the most items with significant changes (four with +2 and three with -2). Steve's response on #111 ("I have thoughtfully evaluated theories of creation and evolution") increased two levels between the pre- and post-test, and decreased by two levels on two items (#115, "I am comfortable with my beliefs on life, death, and life after death" and #120, "I live according to my beliefs about the existence of a Supreme Being"). Based on the combination of these quantitative findings, this led to an interpretation of possible disorientation in his thinking in the *Spiritual* dimension. Steve also had the second highest overall change in the *DAI*, with an increase of +16 to +19. (Since Steve failed to respond to one of the post-test statements in the *Spiritual* dimension, his total score was represented to reflect the range of his possible post-test score choices of 1-4 for that item.)

The scores of the other three *Leadership Academy* graduates who completed the *DAI* resulted in overall decreases. Kathy's overall post-test score was -2 less than her pre-test, even though she had a +2 increase in the *Political* dimension, and numerous +1 increases throughout her *DAI* self-assessment. Kathy also had the highest increase of anyone within the *Intellectual* dimension, with +6.

Pam's total individual change in the *DAI* was -5, even though she had a +2 increase within the *Political* dimension and other +1 increases throughout her responses. David's total individual change on the *DAI* was -9, despite an increase of +2 within the *Political* dimension, and a number of +1 increases throughout the *DAI* self-assessment.

The other quantitative instrument, the *Leadership Knowledge Survey (LKS)*, measures informative learning about leadership. The findings from the *Leadership Knowledge Survey* showed an increase by all participants, and a notable difference in the level of increases in knowledge between *Leadership Academy* graduates and non-graduates. This self-assessment tool demonstrated that learning outcomes were being met by participation in the *Leadership Academy*. Those who completed the *Academy* scored higher (+14 to +18) than those who participated in the *Academy* but did not complete it (+11 to +12, as shown in Table 11, p. 91). Perhaps the most useful outcome of including the *LKS* instrument within this study, however, was that it showed that students were individually and collectively able to learn about leadership at a fairly consistent rate, regardless of their stage of transformative learning or changes within the *Developmental Advising Inventory*.

To answer sub-question #1, there did seem to be a general relationship between the rank order of the self-assessment quantitative measures among and between research

participants. However, the scores in the *DAI* ranged widely from positive to negative changes. Sharon scored highest on the *DAI* and tied for highest on the *LKS*. Steve scored second highest on the *DAI* and tied for the highest on the *LKS*. Kathy, Pam, and David scored decreases on the *DAI* (-2, -5 and -9 respectively) but scored close to Sharon and Steve on the *LKS* (+14, +17 and +17 respectively).

Again, perhaps the most interesting finding from these quantitative measures was that all five of the *Academy* graduates had a similar increase on the *LKS* (+14 to +18) which showed that their increase in learning about leadership was fairly consistent, even while self-assessment scores within nine *DAI* dimensions of development ranged widely (-9 to +69). This was illustrated in Table 18.

Sub-Question Two: Qualitative Measures (Lived Experiences)

Sub-question #2 was: “How do the research participants describe key aspects of transformative learning and perspective transformation fitting into their *lived experiences*?”

To generate qualitative data, 10 interview questions were designed (see Appendix M) to seek information about the lived experiences of the research participants, and especially changes in their lives. Based on their dialogue type, they were categorized into one of three stages of transformative learning (see Table 13).

Table 19 showed a nominal tabulation of group responses to the questions. A majority said that they saw themselves differently (9 of 10), had new ways to think or act (8 of 10), critically examined values (8 of 10), critically examined knowledge (9 of 10), critically examined their identity (9 of 10), had experienced some kind of change (10 of

10) and were experiencing different views (10 of 10). However, in response to the question about experiencing disorientation, the majority said no (6 of 10).

This apparently contradictory discrepancy may be explained by referring back to the section on *What Form Transforms*, which describes the differences between changes in meaning schemes (which occur within informative learning) and changes in meaning perspectives (which refers to transformative learning). In that section, Kegan (2000) related that “Piaget (1954) distinguished between assimilative processes, in which new experience is shaped to conform to existing knowledge structures, and accommodative processes, in which the structures themselves change in response to new experience.” This explains how the majority of the research participants reported changes in how they saw themselves, had new ways to think or act, critically examined their values, knowledge, and identity, and had experienced different views without experiencing a disorientation. Their self-perceived changes were based upon changes within meaning schemes, or what Piaget called “assimilative processes, in which new experience is shaped to conform to existing knowledge structures.”

So, to answer sub-question #2, there seemed to be general consistency in the interview responses that the research participants had experienced changes. However, these responses in and of themselves did not necessarily indicate that transformative learning was taking place.

Sub-Question Three: Qualitative Measures (Conditional Thresholds)

Sub-question #3 was: “Were *conditional thresholds* for transformative learning reached in different ways for different participants in this study?” As shown in Appendix F, 10 conditional thresholds for transformational learning were identified.

Participant dialogue was matched with these conditional thresholds and coded with corresponding numbers to provide identifiable evidence that the thresholds were being met.

Table 21 shows how these conditional thresholds were met, based on the evidence of the coding from the interview dialogue. Tom's interview revealed evidence of all 10 of the conditional thresholds being met. Sharon's dialogue showed evidence of the thresholds being met in six of the 10 areas, including the four thresholds that Mezirow identified as critical for transformative learning to occur (#6, 7, 9 and 10 in Appendix F).

Among the other research participants, David and Jen showed evidence of meeting the thresholds in four of the 10 areas. Tammy showed evidence of meeting the thresholds in three areas, Kathy and Roy in two, and Diane, Steve, and Pam in just one area.

So, to answer sub-question #3, there was a wide range of how the conditional thresholds for transformative learning were met by different participants in the study. Tom and Sharon were the only two who showed evidence of meeting the critical thresholds (#6, 7, 9 and 10) that Mezirow said were critical for transformative learning to occur. Notably, Tom and Sharon were also the oldest participants in the study.

Sub-Question Four: Mixed Method Measures (Analysis of Mixed Methods)

Sub-question #4 was: "Can we come to a better understanding of opportunities for student transformative learning and perspective transformation by analyzing their levels of developmental self-assessment, lived experiences, and conditional thresholds?"

Table 22 shows the comparison of all of the independent quantitative and qualitative results between the five participants who completed all of the comparative

measurements. This shows an inconsistent relationship between the four sets of measures. The only consistent result was that of Sharon, who scored highest (or tied for highest) in all categories. Steve tied for highest increase in score in the *LKS*, was second in the *DAI*, but provided little evidence of meeting conditional thresholds and his dialogue was categorized at the lowest level of narrative.

Pam, whose *Leadership Knowledge Survey* score was tied for the second highest increase, had only the fourth highest increase in the *DAI*. Her categorization of dialogue at the narrative-transactional stage of transformative learning would place her as second highest among *Academy* graduates, but her evidence of conditional thresholds was lowest.

David, who had the largest decrease in the *DAI*, was tied for second in the *LKS*, and his evidence of conditional thresholds may have also placed him second. But, his dialogue was categorized at the lowest level of narrative. Kathy scored lowest on *LKS* scores and categorization of stages of transformative learning, and scored in the middle on *DAI* scores and evidence of conditional thresholds.

When conditional thresholds and the categorization of dialogue into stages of transformative learning were considered for all research participants, the results in Table 23 show that the comparison of qualitative results among all participants (using the 10 conditional thresholds, and categorization of dialogue into stages) were not consistent, except at the highest levels by Sharon and Tom. (However, this inconsistency could also be due to misinterpretations by the researcher, or a lack of complete and accurate disclosure by participants in the one hour interviews.)

To further integrate the lived experiences of the research participants, Table 24 reflects the upward adjustments in the categorization of dialogue into stages of transformative learning (grouped by *Academy* grads and non-grads). In this table, David and Tammy were moved upward due to the evidence of conditional thresholds that were met, and Steve was moved up based upon the significant changes within the *DAI* self-assessment responses in the *Spirituality* dimension. Table 25 then takes these same upward adjustments, but instead of grouping everyone as *Academy* grads and non-grads as in Table 24, it groups everyone by age, which reveals a significant top-down pattern with a strong correlation by age.

So, to answer sub-question #4, the adjusted categorization of dialogue into stages of transformative learning (as grouped by age in Table 25), seems to show that we can come to a better understanding of opportunities for student transformative learning and perspective transformation by analyzing their levels of developmental self-assessment, lived experiences, and conditional thresholds. While the *Leadership Knowledge Survey* may have shown that the intended learning outcomes of the *Leadership Academy* were being met, it did not directly contribute to the identification of transformative learning (except incidentally in Sharon's case, who scored highest on all measures). However, the other developmental self-assessment quantitative measure, the *DAI*, did seem to help identify some significant changes in thinking, particularly within the *Spiritual* dimension.

Clearly the most helpful tools for identifying whether transformative learning may be taking place were the qualitative measures. The 10 interview questions (Appendix M) were designed to draw out information about the life experiences of the research participants. The 10 conditional thresholds for transformative learning (with special

attention to Mezirow's critical #6, 7, 9 and 10, as described in Appendix F) and the categorization of dialogue within three stages of transformative learning (as illustrated in Table 25) were useful tools for identifying whether transformative learning was or could be taking place.

Grand Tour Question

The grand tour question for this research project was "How does transformative learning fit into the experience of college students who are engaged in a semester-long leadership academy at a mid-sized western regional university?" The answer to this question, based on the findings from this study, is that opportunities for transformative learning and perspective transformation may fit into the experience of college students, if they meet conditional thresholds that include age, lived experiences, critical reflection on assumptions, and having the emotional stability and the evolutionary readiness to *heed the call* of transformative learning opportunities, whether they are engaged in a semester-long leadership academy at a mid-sized western regional university or not. (Talk about an extended if-then proposition!)

Both the quantitative and qualitative methods contributed to this finding. While the qualitative methods revealed the most helpful information about how transformative learning was (or wasn't) fitting into the life experience of college students, the quantitative data from the *Developmental Advising Inventory* also showed some significant changes in thinking by the students (with increases or decreases by two levels out of four) in multiple dimensions of development, which in turn showed how opportunities for transformative learning through critical reflection may present themselves through different developmental dimensions. The quantitative data from the

Leadership Knowledge Survey also helped to illustrate the traditional processes of informative learning, and may have helped to distinguish the differences between the received, objective nature of knowledge within informative learning and the constructed, subjective nature of knowledge within the domain of transformative learning.

The findings from the qualitative methods were derived from a 10-question interview that intentionally delved into their lived experiences. It was designed to seek responses about significant changes within their lives. The participant responses to these open-ended questions were analyzed through a checklist of 10 conditional thresholds for transformative learning to occur.

Based on their interview dialogue, the research participant dialogue responses were categorized into three stages of transformative learning (Tables 20, 24, and 25). While this checklist and these stages were helpful in the attempt to identify where opportunities for transformative learning may be occurring, this researcher is far from confident that his present level of skill can consistently identify and classify the evidence into structural invariants that may be accurately assigned to whether a threshold was met or if a stage was reached. The researcher may have been overly generous in his categorization of stages in the transformative learning process. It is not just *any* inkling of change that shows evidence of a change in meaning perspectives. Most change takes place within informative meaning schemes, and adjustments within existing habits of mind. However, it is hoped that the attempted use of these categorizations may help to illuminate the many factors that contribute to transformative learning opportunities.

The most significant finding from this research study was that it reinforced previous research on the subject of transformative learning: opportunities for

transformative learning are more likely to fit into the experiences of older individuals. Challenging our assumptions about, and critically reflecting upon, our life experiences helps us to shape the construction of meaning and the potential for self-authorship in adulthood. As we age we not only develop, but we also accumulate more life experiences which provide more opportunities for critical reflection.

So, does aging necessarily lead to a self-fulfilling prophecy for transformative learning? One answer appears to be that as we age, we tend to reflect more on the meaning of our experiences, and there are simply more opportunities for this process to occur.

The findings in this study were consistent with the research. The findings showed that the potential for transformative learning depends upon a number of factors, including: Their lived experiences, triggering experiences that cause critical reflection upon assumptions, and their emotional and cognitive readiness and willingness to move forward, grow, and mature into a transformed perspective. The most significant finding was correlation by age.

Discussion

Why explore these things? Why employ our leisure to seek? Why analyze ourselves? Why try to understand man . . . beset as he is by the most destructive sort of internal conflicts which all too often show through the slit in his helmet as suspicion and fear. . . . All right! Why explore in our leisure ourselves and the workings of all men—and as much of nature as we can grasp? Because . . . if we don't, we speak as fools . . . and we squeeze out a paste so meaningless, it will prove convincing to no one. . . . For only the understanding heart, and I do not necessarily speak of the happy heart, but of the understanding heart, possessed of a psychic unity, can comprehend the infinite possibilities of Reality and, being confident, can understand the hearts of other men and speak to them in turn with truth and clarity.

--From *Osborn on Leisure* (1956, pp. 88-92)

This research project was designed to aid in the understanding of the phenomenon of transformative learning, both as a process and for its potential outcome of perspective transformation. Transformative learning as a process is fundamentally about constructive meaning-making, and as an outcome it is about a shift in meaning perspective to “thinking like an adult.” Critical reflection and the challenging of our assumptions can trigger this process and outcome, although as it has been shown, the learner must be ready and willing to take this critical step in the process of adult learning and development. Mentors must also be ready to recognize and support students who are bridging toward this end.

This study confirmed the research that transformative learning will only fit into the experience of older students. However, research has shown that age alone does not necessarily lead to transformative learning. Many adults become so engaged in informative learning that they strongly resist the disruptive process toward transformative learning. “Many individuals fail to negotiate this crisis (of perspective transformation) successfully and enter adulthood with rigid and highly defended thought patterns” (Mezirow, 1991a, p. 156).

Perspective transformation emerged from the field of adult education, which uses constructivist andragogical (adult) teaching techniques to help facilitate transformative learning (compared to pedagogical objectivist techniques for teaching informative learning). Within the field of adult education, adulthood has been defined as beginning at the age of 25. There are numerous concrete reasons that have triangulated around age 25 as the starting point for adulthood:

- Behavioral research within adult education that shows that people begin to think and act differently around that age.
- Actuarial tables show a decrease in automobile accidents by that age (which may explain why many rental car companies require their renters to be age 25 or older).
- Brain development research has shown that the brain is not fully developed, biologically and physiologically, until around age 25.

This supportive evidence shows why transformative learning may not be expected to fit into the life experience of college students, or indeed any adults, until they're at least age 25. Their capacity to be a *fully functioning* adult is not fully realized until around that age.

Within higher education, this has particular implications for non-traditional undergraduates who may be beginning or returning to college at an older age. It also has implications for many students within graduate school, who may be approaching or past the age of 25.

Implications for Higher Education

Sanford (1966) observed, "The most effective college might well be one in which half of the people were working at challenging the students and the other half at seeing that these challenges did not become overwhelming." Student Affairs has traditionally undertaken this latter, supporting role in higher education. However, Student Affairs practitioners can no longer afford to exclusively follow this path, of merely supporting the academic mission and supporting students at their institution.

Student Affairs practitioners can provide the vital experiential side of the transformative learning equation, which, when coupled with critical reflection on assumptions, in combination with the scholarly rigor of the academic curriculum, can help to engage and challenge the whole student. Student Affairs practitioners must partner with faculty, and faculty must partner with Student Affairs practitioners, in order to provide the most complete challenges and support for students, for duty and humanity.

In Kegan's 1994 work, *In Over Our Heads: The Mental Demands of Modern Life* he discusses how the complexities of modern life demand transformative learning. He also describes the difficulties of actually experiencing that transformation, and the critical need for support:

it is *not* necessarily a bad thing that adolescents are in over their heads. In fact, it may be just what is called for *provided they also experience effective support*. Such supports constitute a holding environment that provides both welcoming acknowledgment to exactly who the person is right now as he or she is, and fosters the person's psychological evolution. As such, a holding environment is a tricky transitional culture, an evolutionary bridge, a context for crossing over. It fosters developmental transformation, or the process by which the whole ("how I am") becomes gradually a part ("how I was") of a new whole ("how I am now"). (p. 43)

Student Affairs must continue to lead the way regarding the support of students who become overwhelmed with the challenges of college life. Student Affairs practitioners are well aware of the need to have effective response protocols in place for students who need personal, academic, and career counseling. While some of these needs may be due to academic, financial, health, family, relationship, or personal reasons, there is no question that some of these may be due to the disruptive process of transformative learning.

For students who are confronted with the emergent shift toward self-consciousness and autonomy within an emancipatory realization of perspective transformation, they will inevitably struggle as they critically self-reflect upon their distorted premises, and go through phases of “shock and immobilization, denial, depression, searching for meaning” (Brammer & Abrego, 1981, in Mezirow 1991a, p. 157). The prospect of a transition from the well known to the unknown may be perceived as intimidating, frightening, or frustrating, and may result in “anxiety and depression” or “anger and repudiation” (Kegan, 1982, p. 82). Unchecked, these feelings may manifest themselves in negative behaviors. According to Sloan (1986), “The person left to rely on natural, inner growth processes will often take the turn toward addiction, masochism, or suicide in the midst of transition periods” (in Mezirow, 1991, p. 157). So, Student Affairs practitioners need to become aware of the potential negative impacts that this process may cause, and be prepared to offer appropriate support through effective mentoring (Daloz, 1999) and/or counseling services.

Recommendations

There was that law of life, so cruel and so just, which demanded that one must grow or else pay more for remaining the same.

—Norman Mailer, American Author, 1923-2007

Few would dispute that a higher education can and will expand a learner’s horizons, which may well include growth beyond what Mezirow calls “habits of expectation” (1991a, p. 50). Transformative learning clearly exceeds a learner’s anticipated horizons and habits of expectation.

While an expanded consciousness is routinely identified as one of the primary outcomes of higher education, this concept is not universally understood.. Transformative

learning and perspective transformation are key elements of this elusive outcome of college and of human development. But, most people simply don't even understand what it is—not students, not faculty, not Student Affairs practitioners—so how can they intentionally pursue this process? It's largely an unknown concept in many fields (although it is certainly addressed within many academic traditions; in particular, some aspect of transformative learning is addressed in the Humanities, counseling, adult education, psychology, religion, and other social science fields that recognize the importance of a post-modern constructivist approach in the complex modern world). Transformative learning is one of the most unique, valuable, and highest outcomes (or rather, opportunities for highest outcomes) that a college education, or indeed, human potential, can achieve.

If transformative learning is to become a priority in higher education, it will be vital to first promote the recognition, understanding, and relevance of this phenomenon among educators. The following recommendations will be made within a framework of *Vision, Challenge, and Support* (as an extension of Sanford, 1962 and Daloz, 1999).

Vision—Understanding the Process and Potential Outcomes of Transformative Learning

As Schumacher (1977) described earlier in this paper, the transformation from acorns to oak trees can provide “something much better.” This transformative process provides an answer to the anguished cry of the protagonist in the film *Educating Rita* (Russell, 1983), who lamented in her discontent and sorrow, “There must be a better song to sing than this.”

As Maslow and others have observed, there is a fundamental difference between objective, positivist, received, outer-directed approaches, and subjective, constructivist, inner-directed, personally meaningful approaches. Maslow (1984) utilized upper case and lower case letters to help to illustrate this distinction. Using religion as an example, he refers to this as the difference between the “institutionalized, conventional, organized” *Big R Religions* and the “subjective and naturalistic religious experience and attitude” of *small r religion* (p. viii). He also uses this technique to differentiate between *Big T Truth* (p. 55) and *small t truth*. (For the purposes of this discussion this could also be extended to *Big K Knowledge* and *small k knowledge*, *Big M Meaning* and *small m meaning*, and *Big P Perspective* and *small p perspective*. The distinction is that the *Big W Words* are positivist, other-directed, and received, and *small w words* are constructivist, inner-directed, and personally meaningful.)

The transformation that occurs is a fundamental shift from an exclusively received approach to a personally constructed approach, which makes learning more meaningful. Brazilian educator Paolo Friere (1970) characterized this type of learning as a transformation from being oppressed to being liberated.

Our traditional teaching philosophy and techniques are designed for informative learning. This traditional approach, called pedagogy, is designed for teaching children about *Big T Truth* (received, institutional, content-centered, positivist knowledge).

To address the transformative learning and developmental needs of adulthood, we must apply an entirely different philosophy and set of teaching strategies for adult learning. This approach, called andragogy, centers around constructivism and meaning-

making, and is designed to help facilitate *small t truth* within adults (constructed, personal, student-centered, meaningful knowledge).

This is the learning that must be reconsidered in higher education. If we as adults are not to become *In Over Our Heads* with the mental demands of modern life, we must address these developmental needs. To do this we must add andragogy to our pedagogy, and recognize when and how to challenge and support students to critically reflect upon their assumptions and construct meaning of their experiences.

The vision of reconsidering adult learning is essential to facilitate opportunities for transformative learning and perspective transformation. This *new map* (Keeling, 2004, p. 10), with transformative learning as the central aspect, leads toward “more rooted inner learning, and ways of knowing” (Kegan, 2000, p. 13). This concept fits well, metaphorically, with Schumacher’s description (1977, included earlier in this paper) about the transformation from acorns to “something much better; that we can become oak trees.” This *more rooted* outcome describes nothing less than the central theme and journey for adult development.

It is critical for practitioners to realize that while striving to challenge students to grow toward the vision of transformative learning and perspective transformation, there must be an appropriate balance of challenge and support. As shown in *The effects of challenge and support on development* (Appendix H), too much challenge and not enough support can result in *retreat*. Too little challenge and support can result in *stasis*. Only an appropriate balance of challenge and support can lead to *growth*.

Daloz (1999) offers specific techniques that can be used to promote this transformative vision. These include: modeling, keeping tradition, offering a map, suggesting new language, and providing a mirror.

Challenge—Providing Challenges that Serve as Catalysts to Critical Reflection

It is critical for practitioners to realize that while striving to challenge the personal and social assumptions of students, there must also be an appropriate balance of challenge and support. As shown in *The effects of challenge and support on development* (Appendix H), too much challenge and not enough support can result in *retreat*. Too little challenge and support can result in *stasis*. Only an appropriate balance of challenge and support can lead to *growth*.

Challenges to promote transformative learning must be provided which place “the student’s reflective processes at the core of the learning experience and asks the student to evaluate both new information and the frames of reference through which the information acquires meaning” (Mezirow & Associates, 2000).

Some of the techniques that can be applied in the pursuit of such reflective processes include social critique (Friere, 1970), the action-reflection model of the *experiential learning cycle* (Kolb, 1981, Appendix E), setting tasks, engaging in discussion, heating up dichotomies, constructing hypotheses, and setting high standards (Daloz, 1999), dialogical processes (Taylor et al., 2000), ill-structured problems and self-authorship (Baxter Magolda, 2001), Socratic questioning (Gross, 2002), engaged citizenship, career planning, ethical approaches, practical leadership, emotional intelligence, critical thinking, informed decision-making, working in teams and groups, cultural competency, tolerance of ambiguity (Keeling, 2004), ideology critique

(Brookfield, 2005), case studies, collaborative learning, collaborative writing, critical incidents, discussion, interviews, round-robin discussion or circle of voices, student presentations, journals, and research papers (when presented with an emphasis on being critically reflective) (King, 2005).

Support—Providing Support so Challenges do Not Become Overwhelming

It is critical for practitioners to realize that while striving to support the personal and social assumptions of students, there must also be an appropriate balance of challenge and support. As shown in *The effects of challenge and support on development* (Appendix H), too much support and not enough challenge can result in *confirmation*. Too much challenge and not enough support can result in *retreat*. Too little support and challenge can result in *stasis*. Only an appropriate balance of challenge and support can lead to *growth*.

Strategies to support transformative learning include listening, providing structure, expressing positive expectations, serving as advocate, sharing ourselves, and making it special (Daloiz, 1999). Other ways of providing support include understanding the process of perspective transformation, recognizing when conditional thresholds have been met for transformative learning (see Appendix F), being able to explain how disorientation is a natural part of process, being able to diagnose “anxiety and depression” or “anger and repudiation” as possible outgrowths from this disorientation, being prepared to provide or refer to support systems for these symptoms as necessary, and being able to know what bridge we are on, and not “overattend to where we want the student to be—the far side of the bridge—and ignore where the student is” (Kegan, 2000, pp. 60-61).

Intentionally integrating transformative learning into the college curriculum.

Once the institution possesses clear pictures both of the individuals who are entering it and of the kind of individual that it hopes will emerge, it is in a position to plan effective procedures for bringing the desired changes about.

—*Self & Society* (Sanford, 1966)

Every resource on campus should be used to achieve transformative liberal education for all students, and all colleges and universities are accountable for establishing and assessing specific student outcomes that reflect this integrated view of learning.

—*Learning Reconsidered* (Keeling, 2004)

As Fried emphasized in *Learning Reconsidered 2* (Keeling, 2006), there are important reasons to reconsider learning in higher education:

- Our model of learning is out of date and inaccurate.
- Our ideas about learning are embedded in a positivist epistemology.
- The construction of meaning no longer occurs only in the academic context.
- Constructivism (is) a challenge to positivism. (Fried, 2006, pp. 3-4)

If higher education is to bring transformative learning and the promise of perspective transformation to the forefront of its function, faculty and staff must bring it to the forefront of their praxis. Transformative learning must be readily understandable, recognizable, and actionable, in terms of the opportunities for outcomes, and the strategies that can intentionally be employed to help transformative learning to fit into the experience of the learner.

Higher education practitioners must not only have a fundamental understanding of transformative learning, but must also be able to fulfill the mentor's roles of providing vision, challenge and support for transformative learning. When a student is experiencing *anxiety and depression* or *anger and repudiation* it could well be due to financial or relationship problems, which are common maladies for college students. However, these symptoms may also be an indication of the disorientation that

accompanies perspective transformation. Again, recognizing the evidence of conditional thresholds for transformative learning (Appendix F), and categorization of dialogue within three stages of the process of transformation (Table 25) will help to distinguish this phenomenon from other life challenges.

It may be difficult for the average instructor or program practitioner to distinguish between changes that occur within meaning schemes, and transformations between meaning perspectives. Truly, with a content-centered informative learning approach to education, it may be difficult for them to even realize and recognize that the process is occurring at all. Taking a student-centered approach is necessary to help facilitate transformative learning.

Perspective transformation is a cognitive and psychological phenomenon, and most faculty and staff within higher education are not psychologists. So, for a better understanding of transformative learning and perspective transformation, higher education practitioners may want to begin their education in this subject area by reading *Mentor: Guiding the Journey of Adult Learners* (Daloz, 1999). (When Daloz first published that book, it was called *Effective Teaching and Mentoring: Realizing the Transformational Power of Adult Learning Experiences* (1986). When it came out in a later edition as *Mentor*, it lost the descriptive sub-title that so clearly described its scope.)

Other books that can help potential mentors to better understand the important reasons behind the critical need for transformative learning, and how to promote this process, include *In Over Our Heads* (Kegan, 1994), *The Evolving Self: Problem and Process in Human Development* (Kegan, 1982), *Bringing Transformative Learning to Life* (King, 2005), *Fostering Critical Reflection in Adulthood: A Guide to Transformative*

and Emancipatory Learning (Mezirow, 1990), *Transformative Dimensions of Adult Learning* (Mezirow, 1991a), *Understanding and promoting transformative learning: A guide for educators of adults* (Cranton, 2006b) and many others. The film *Educating Rita* (Russell, 1983) also gives an introduction to the phenomenon of the adult journey of transformative learning.

Being able to recognize the process of transformative learning, and understanding that opportunities exist to assist on the journey, is of vital importance. Keeping the end result and vision of transformative learning in mind, it is critical for mentors to provide an appropriate balance of challenge and support. However, it needs to be clear that this should be based on the needs of the student, and not on the needs of the instructor. There are ethical considerations that should prevent mentors from dragging students kicking and screaming across the bridge. As has been emphasized, the transitional stage is tenuous, and can be disruptive and upsetting, and students must be ready to undertake this critical step in the journey of adulthood.

Developing a FALDO for Transformative Learning Opportunities

Earlier it was stated that at the conclusion of this study, the question of what measures can be used to assess transformative learning, and the idea of applying the A-B-C-D model (Cope & Nading, 2007) to address opportunities for transformative learning outcomes, would be revisited. This will provide some preliminary recommendations to consider for the development of a CAS Framework for Assessing Learning and Development Outcomes (FALDO) for transformative learning opportunities. For this, the A-B-C-D learning outcomes model is used, and an extra dimension, E, is added to address ethical concerns:

- Audience/Who - Who does the outcome pertain to?

Individuals (most commonly adults of age 25 or older) with life experiences, intellectual capacity, emotional stability, and a readiness to bridge to a new meaning perspective.

- Behavior/What – What do you expect the audience to know/be able to do?

Willingness to *heed the call of adventure* and embrace the ability to critically reflect upon their assumptions, and bridge from exclusively received informative learning, to personally constructed meaning-making (from *Big T Truth* to *small t truth*) that will fit into the context of their lived experiences as a transformation of perspective. This can begin to be measured by the categorization of dialogue within three stages of the process of transformation.

- Condition/How - Under what conditions or circumstances will the learning occur?

Ten conditional thresholds have been identified for transformative learning opportunities to occur. However, the process of perspective transformation can take 5-20 years, and may not manifest itself until age 35-55.

- Degree/How much - How much will be accomplished, how well will *the behavior* need to be performed, and to what level?

Dependent on the lived experiences and readiness of the learner, and the ability of the mentor to recognize and encourage the process.

- Ethical concerns - Only opportunities, not guarantees: Mentors must realize that personal growth and evolutionary thinking can be encouraged, but should not be forced.

As King (2005) emphasized:

Ethically, adult educators need to respect the rights, beliefs, values, and decisions of our adult learners, always . . . In providing transformative learning opportunities, we need to delicately balance the value we place on transformative learning and the learner's decision to pursue it, or not. We must be careful and mindful to leave room for the adult learner to say, "I don't want to go there." Adults come to any learning experience with a multitude of individual circumstances and needs. Life in this millennium is complicated. As much as we might communicate the infinite shades of gray that exist in perspectives and understanding, so must we communicate the freedom not to pursue the pathway of questioning and new perspectives. This should not be a value judgment in any way, but perhaps best viewed as our own admission that we do not have all the answers and cannot make decisions for our learners. (p. 17)

The lived experiences of the student may be such that they may be overwhelmed at the current time, but later in their life they may be ready and willing for perspective transformation. As Kegan (2000) stated, "We cannot overattend to where we want the student to be—the far side of the bridge—and ignore where the student is." As Mezirow (2000) said, students can not be indoctrinated into transformative learning. Their lived experiences must fit into it. While informative learning outcomes can be taught and learned, transformative learning is more *deeply rooted* and *inner held*.

Further ethical concerns can stem from situations where the mentor moves the student toward disorientation through critical reflection on their assumptions, but does not provide an appropriate balance of challenge and support to support growth. Jane Fried spoke to this issue in *LR2*:

You don't have to know how a car engine works to turn a key and make it run. Designing learning experiences with the potential to provoke transformation and assessing learning outcomes is similar to learning to drive a car. You have to know where to put the key, how to steer, and when to put in gas and change the oil, but you don't have to know how the engine runs or how to do a computer diagnostic test on the electrical system. (Fried, 2006, p. 6)

(To link literal metaphors, Mezirow referred to perspective transformation as "the engine of adult development" (1994, p. 228).

Experiential education expert Karl Rohnke (perhaps best known for his work with *Project Adventure* books and activities) expressed a similar approach, when he coined the acronym FUNN (Fundamental Understanding Not Necessary) to describe the central process employed within his experiential activities (Rohnke, 2004). His claim is that it is enough to understand and apply the action-reflection process within the *experiential learning cycle* (see Appendix E). He states that by simply adhering to this action-reflection process, profound learning will result. Even if you don't know why, it will send people along in the right direction for profound learning.

Mentors can and should continue to encourage an emphasis on lifelong learning and critical thinking, to increase opportunities to catch adults when their lived experiences have a greater chance of fitting with transformative learning. However, it has been shown that the disorientation process can be disruptive and potentially harmful. Practitioners who provide challenges of critical reflection must also be prepared to provide support to help students cope with disruptions, retreat, drop-outs, and even suicidal tendencies. So, while the concepts of knowing how to drive a car and FUNN can promote critical reflection on assumptions, an even better approach is to understand the potential ethical consequences of their actions or non-actions, and to balance challenges and support to help students approach the vision of transformative learning opportunities.

Conclusion

In conclusion, one of the greatest current challenges to transformative learning opportunities (besides the obvious need to spread a better understanding of this phenomenon) is that the constant modern activities of busy-ness don't encourage time for critical reflection. Cell phones, computers, television, video games, and other modern

electronic devices keep people constantly in touch with each other through means such as texting and facebook, and in escape mode through easily accessible entertainment and seemingly limitless information. While this may be perceived as a boon to informative learning, this is potentially a serious detriment to the pursuit of transformative learning. These modern conveniences fill in the available time and space to capacity, in what might otherwise be quiet times that could be filled with critical reflection and reflective thought. The Monty Python phrase that “souls don’t develop because people become distracted” may not be as funny as we originally thought (Chapman, et al., 1983).

Mezirow (1991a, p. 19) describes “the muting of awareness to avoid anxiety” and how “our adult reality is often not only shaped but distorted by the resulting self-deception and shared illusions.” He then illustrates this “central learning problem of adulthood” by quoting one of R.D. Laing’s “knots,”

The range of what we think and do
is limited by what we fail to notice.
And because we fail to notice
that we fail to notice
there is little we can do
to change
until we notice
how failing to notice
shapes our thoughts and deeds.
(Goleman, 1985, p. 24)

Our culture and habits of mind can aid or impede this process. If we are constantly busy, and don’t take the time to critically reflect upon our assumptions, and fail to notice that we fail to notice, our potential for transformative learning will not be reached.

It seems appropriate that since King (2005) was influential in the framing of the grand tour research question for this study, that she should also have significant influence

on the conclusion. In *Bringing Transformative Learning to Life* (King, 2005), she speaks about opportunities for transformative learning through the Transformative Learning Opportunities Model. In this model she emphasizes that while instructors can provide strategies and opportunities for transformative learning to occur, it is up to the learner to change or not. As Mezirow pointed out, “One cannot become emancipated through indoctrination” (1991a, p. 88). The individual alone chooses how they perceive and make meaning of the world and their experiences within it. Instructors should not force this process, but rather should provide nurturing challenges and support toward this vision. Only in this way can the promise of transformative learning be realized.

As King (2005) observed, there are no guarantees of transformative learning outcomes, only opportunities. The life experiences of students must lead them to intellectual and emotional readiness, meet conditional thresholds, and they must be psychologically willing and able to *heed the call* to the adventure of crossing the mysterious bridge toward opportunities for transformative learning, toward a more deeply rooted perspective, and the natural transformation from acorns to oak trees.

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Appendix A

CAS Professional Standards for Higher Education

CAS Professional Standards for Higher Education

The Council for the Advancement of Standards in Higher Education (CAS) created the “blue book” of *CAS Professional Standards for Higher Education* “as a direct response to the . . . need to establish standards to guide both practice and preparation” in higher education (Dean, 2006, 6th ed.). CAS provides detailed standards for self-review and analysis in each of the following 13 categories. Within each of these categories are mandatory standards (in bold type) and recommended guidelines (in regular type face).

- Part 1. MISSION
- Part 2. PROGRAM
- Part 3. LEADERSHIP
- Part 4. ORGANIZATION and MANAGEMENT
- Part 5. HUMAN RESOURCES
- Part 6. FINANCIAL RESOURCES
- Part 7. FACILITIES, TECHNOLOGY, and EQUIPMENT
- Part 8. LEGAL RESPONSIBILITIES
- Part 9. EQUITY and ACCESS
- Part 10. CAMPUS and EXTERNAL RELATIONS
- Part 11. DIVERSITY
- Part 12. ETHICS
- Part 13. ASSESSMENT and EVALUATION

These thirteen standards are currently applied in each of the following 35 areas of higher education service delivery:

- 01. Academic Advising Programs
- 02. Admission Programs
- 03. Alcohol, Tobacco, and Other Drug Programs
- 04. Campus Activities Programs
- 05. Campus Information and Visitor Services
- 06. Campus Religious and Spiritual Programs
- 07. Career Services
- 08. Clinical Health Programs
- 09. College Honor Societies
- 10. College Unions

11. Commuter and Off-Campus Living Programs
12. Conference and Events Programs
13. Counseling Services
14. Disability Support Services
15. Distance Education Programs
16. Education Abroad Programs and Services
17. Financial Aid Programs
18. Fraternity and Sorority Advising Programs
19. Health Promotion Programs
20. Housing and Residential Life Programs
21. International Student Programs
22. Internship Programs
23. Learning Assistance Programs
24. Lesbian, Gay, Bisexual, and Transgender Programs
25. Multicultural Student Programs and Services
26. Orientation Programs
27. Outcomes Assessment and Program Evaluation
28. Recreational Sports Programs
29. Registrar Programs and Services
30. Service-Learning Programs
31. Student Conduct Programs
32. Student Leadership Programs
33. TRIO and Other Educational Opportunity Programs
34. Women Student Programs
35. Master's Level Student Affairs Administration

CAS Standards can be used for Accreditation Review, Self-Assessment, Credibility and Accountability, Program Development and Advocacy, Staff Development, and Academic Preparation (Dean, 2006, pp. 9-14).

(NOTE: The CAS spirit of self-assessment for improvement has significantly influenced this research study.)

Appendix B

CAS Frameworks for Assessing Learning and Development Outcomes (commonly abbreviated as FALDOs)

CAS Frameworks for Assessing Learning and Development Outcomes
(commonly abbreviated as FALDOs)

The Council for the Advancement of Standards in Higher Education (CAS) recently published a new book designed to assess student learning outcomes, called *Frameworks for Assessing Learning and Development Outcomes* (Strayhorn., 2006). These FALDOs, as they are abbreviated and commonly called, emphasize the importance of promoting student learning and development within each of the 35 functional service areas of higher education. The 16 targeted student learning and development outcomes (FALDOs) are:

- Career Choices
- Collaboration
- Effective Communication
- Appreciating Diversity
- Personal and Educational Goals
- Healthy Behavior
- Independence
- Intellectual Growth
- Leadership Development
- Satisfying and Productive Lifestyles
- Meaningful Interpersonal Relationships
- Realistic Self-Appraisal
- Enhanced Self-Esteem
- Social Responsibility
- Spiritual Awareness
- Clarified Values

(NOTE: While “maturation” and “thinking like an adult” are not listed as specific learning and development outcomes within these FALDOs, the call from *Learning Reconsidered 2* (Keeling, 2006) for “transformative learning” (and the use of critical thinking processes to be used as a means to achieving these ends) makes this transformative learning process implicit within each of the FALDOs.)

Appendix C

Leadership Development FALDOs

Leadership Development FALDOs

As evidenced within the CAS standards, “Student Leadership Programs” are included as one of the focus areas for service delivery within higher education (see #32 of the CAS functional areas in higher education in Appendix A). In addition, “Leadership Development” is among the 16 FALDOs identified as desirable learning and development outcomes (see Appendix B). Thus, it is clear that institutions of higher education regard leadership development as an important outcome for students.

In the FALDO description of “Leadership Development,” the following variables are listed as targeted leadership learning and development outcomes (Strayhorn, 2006):

- Serves as a role model
- Self awareness
- Commits to civic responsibility
- Initiates change for the common good
- Collaborates with others
- Builds trust
- Sets goals / vision
- Engages in teamwork
- Resolves skills
- Takes risks
- Offers leadership roles to others
- Listens
- Respects the dignity of others
- Communicates directly and honestly
- Mentors others

Appendix D

Goals and Outcomes of a Transformative Liberal Education

Goals and Outcomes of a Transformative Liberal Education

Defining Integrated, Intertwined Academic and Developmental Outcomes

Some of the identified goals for a transformative liberal education include:

- Engaged citizenship
- Career planning
- Ethical approaches
- Practical leadership
- Emotional intelligence
- Critical thinking
- Informed decision-making
- Working in teams and groups
- Cultural competency
- Tolerance of ambiguity

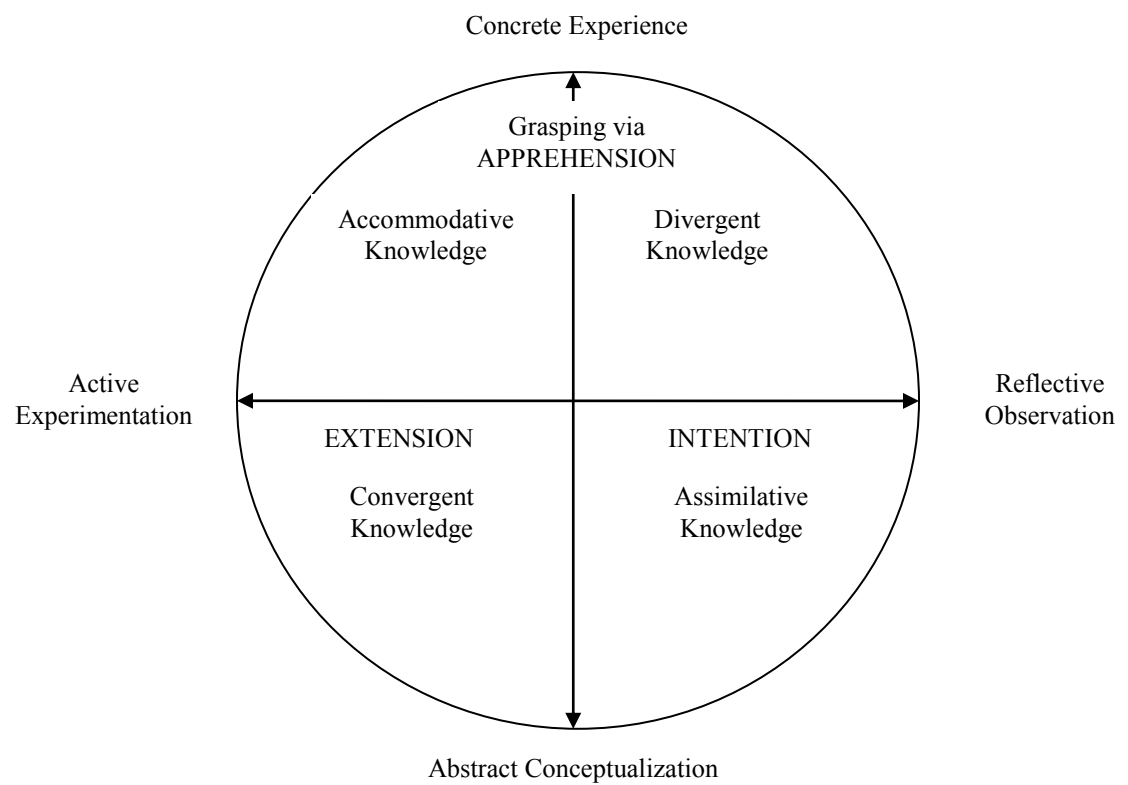
From *Learning Reconsidered: A Campus-Wide Focus on the Student Experience*.

(Keeling, 2004).

Appendix E

The Experiential Learning Cycle of Development

The Experiential Learning Cycle of Development



From *Experiential Learning: Experience as the Source of Learning and Development*

(p. 141), by D.A. Kolb, 1984, Englewood Cliffs, NJ: Prentice-Hall.

Appendix F

Evidence of Transformative Learning Threshold Conditions

Evidence of Transformative Learning Threshold Conditions

TRANSFORMATIVE LEARNING THRESHOLD CONDITION	EVIDENCE IN RESEARCH PARTICIPANT
A disorienting dilemma ¹	
Self-examination with feelings of fear, anger, guilt, or shame ²	
Becoming critically aware of one's own tacit assumptions and expectations and those of others and assessing their relevance for making an interpretation ³	
Epistemic processing and reflection when engaged in ill-structured (open-ended, divergent) problems ⁴	
Emotional Readiness ⁵	
Dialectical process (outer) ⁶	
Reflective process (inner) ⁷	
Transforming frames of reference ⁸	
Making public, primarily for ourselves, the historical dimensions of our dilemma ⁹	
Confronting (our dilemma) as a difficulty to be worked through ¹⁰	

(All examples found in Mezirow, 2000)

¹Crucial triggering event from Mezirow's initial 1975 study, p.22)²Follow-up emotional response from Mezirow's initial 1975 study, p. 22)³Extension of Bruner's 4 modes of meaning making to additional mode #5, p. 4)⁴Kitchener: Level #3 of cognitive processing, pp. 4-5)⁵Mezirow's multiple references about the necessity of emotional readiness:

"intensely threatening emotional experience" p. 6,

"requires emotional maturity—awareness, empathy, and control" p. 11,

"Preconditions . . . include . . . emotional intelligence" p. 15)

⁶Reflective Discourse pp. 13-15)⁷Reflectiveness on Assumptions p. 15)⁸Mezirow's description of transformation, p. 19)^{9, 10}Boyd: two fundamental steps toward a personal transformation, pp. 22-23)

Appendix G

Adult Perspectives

Adult Perspectives

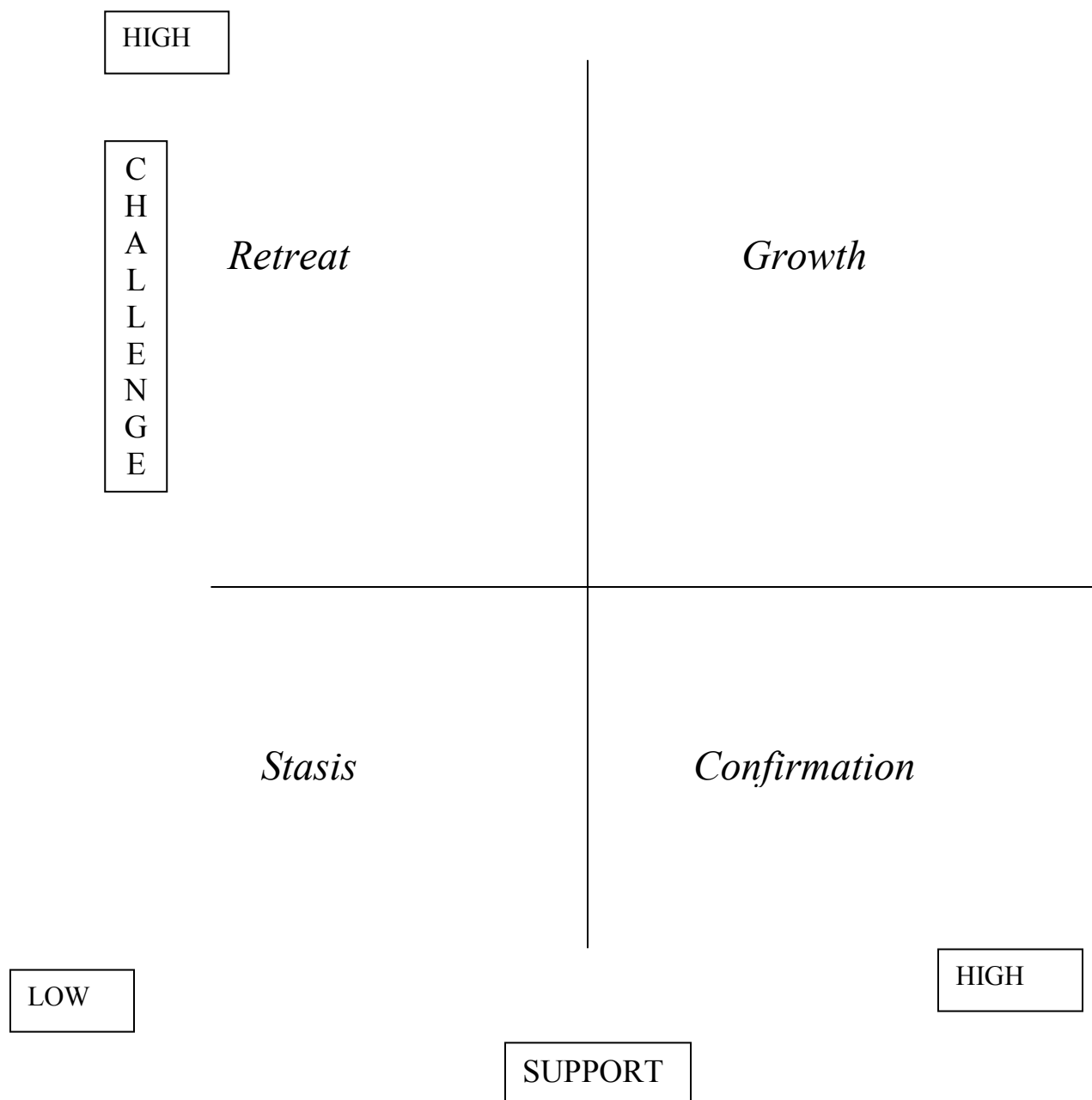
FRAMES OF MIND	SUBJECT (lines of development)	OBJECT (reflected upon by subject)	UNDERLYING STRUCTURE
Pre-Instrumental Mind	COGNITIVE: Perceptions (Fantasy) Social Perceptions/Impulses	Movement Sensation	Single Point/ Immediate/ Atomistic
The Instrumental Mind	COGNITIVE: Concrete (Actuality, Data, cause-and-effect) Point of View (Role-concept, simple reciprocity, tit-for-tat) Enduring Dispositions (Needs, preferences, self-concept)	Perceptions Social Perceptions Impulses	Durable Category
The Socialized Mind	COGNITIVE: Abstractions (Ideality, Inference, generalization, Hypothesis, Proposition, Ideals, Values) INTERPERSONAL: Mutuality/Interpersonalism (Role consciousness, Mutual reciprocity) INTRAPERSONAL: Inner States (Subjectivity, self-consciousness)	Concrete Point of view Enduring dispositions, needs, preferences	Cross-Categorical, Trans-Categorical
The Self-Authoring Mind	COGNITIVE: Abstract Systems (Ideology, Formulation, Authorization, Relations Between Abstractions) INTERPERSONAL: Institution (Relationship-regulating forms, multiple-role consciousness) INTRAPERSONAL: Self-authorship (Self-regulation, self-formation, identity, autonomy, individuation)	Abstractions Mutuality, Interpersonalism Inner States Subjectivity Self-consciousness	System/ Complex
The Self-Transforming Mind	COGNITIVE: Dialectical (Trans-ideological/post-ideological, testing formulation, paradox, contradiction, oppositeness) INTERPERSONAL: Inter-institutional (Relationship between forms, interpenetration of self and other) INTRAPERSONAL: Self-transformation (Interpenetration of selves, inter-individuation)	Abstract system ideology Institution relationship-regulating forms Self-authorship Self-regulation Self-formation	Trans-system/ Trans-complex

(Adapted from “Five Increasingly Complex Epistemologies” in Kegan, 2000, pp. 62-63)

Appendix H

The Effects of Challenge and Support on Development

The Effects of Challenge and Support on Development



From *Mentor: Guiding the Journey of Adult Learners*

by Laurent Daloz, 1999, San Francisco: Jossey-Bass, p. 208.

Appendix I

Leadership Academy Guest Speakers and Leadership Topics, Spring 2007

Leadership Academy Guest Speakers and Leadership Topics, Spring 2007

<u>GUEST SPEAKER</u>	<u>LEADERSHIP TOPICS</u>
Wilma Mankiller, former Chief of the Cherokee Nation (as part of the university's annual Human Rights celebration)	Having Vision and Identifying Goals
University Leadership Program Director	Leadership Styles and Situational Leadership
University President	Risk Taking, Identifying Strengths in Others, and Delegation
Former State Legislator	Decision Making and Conflict Management
Abraham Lincoln, former President of the United States (as portrayed by reenactor Dr. Gene Griessman of Atlanta, as part of the university's annual Leadership Symposium)	Values, Ethics, and Character
Regional Director of Partners for Prosperity (university alumna and former winner of prestigious national Truman Scholarship)	Attitude and Initiative
Panel of Judges	Presentation of Service Learning Projects
City Mayor (and former State Legislator)	Global perspectives and lifelong learning

Appendix J

Leadership Knowledge Survey

Leadership Knowledge Survey

Name _____ Date _____

For each of the following, please make what you think is a realistic self-assessment and indicate the level of your knowledge by marking an “X” in the appropriate box:

	No Understanding	Limited Understanding	Moderate Understanding	Comprehensive Understanding
Teamwork and Team Building				
Vision				
Goal-Setting				
Leadership Styles				
Situational Leadership				
Risk-Taking				
Identifying Strengths in Others				
Delegation				
Values				
Ethics & Character				
Decision-Making				
Conflict Management				
Attitude				
Initiative				
Social Change				
Community Service				
Global Perspectives				
Lifelong Learning				

Appendix K

University of Nebraska-Lincoln

Confidentiality / Informed Consent Form

University of Nebraska-Lincoln
Confidentiality / Informed Consent Form

Project Title

A Mixed Study of Transformative Learning and its Impact on College Student Development

Purpose of the Research

This is a research project. The purpose of the research is to apply transformative learning techniques to aid in the leadership learning and overall developmental outcomes of college students. This is an effort to “heed the call” made in Learning Reconsidered 2 (2006), and investigate ways for the complexities of transformative learning to be integrated into the practicalities of college student learning and development.

You were selected to participate in this project because you are participating in the spring 2007 Leadership Academy, and have expressed an interest in developing as a leader. This research project will be conducted during the spring 2007 semester. The compilation and analysis of the information collected should be completed by the fall 2007 semester.

Procedures

This study involves the completion of self-assessment questionnaires during the normal course of the spring 2007 Leadership Academy. These include a Leadership Knowledge Survey, and the Developmental Advising Inventory. Your responses to these self-assessments will be kept confidential. The results may be included in the study, but your name will not be associated with the responses and will remain confidential.

This study will also involve a structured one hour long interview at the completion of the semester. This will be a semi-structured interview, which means that you will have the liberty to explore the topic in an open-ended format. This confidential interview will be tape recorded and transcribed, and used in the analysis of your development as a result of participating in this study. This interview will be scheduled between you and the principal investigator in late April 2007 based upon your availability.

Risks and/or Discomforts

There are no known risks or discomforts associated with this study. One possible outcome involves the possibility of questions arising related to your development as a person. Another possible outcome is that participation in the interview or the self-assessments could stir up past unresolved issues, if present. A final possible outcome could involve realizations about the impact of others on your personal development. Should any concerns or unresolved issues arise as a result of your participation in the study, you may wish to seek counseling services at any one of the private or state funded agencies in your community. Your investigator will help with a referral if requested.

Benefits

You may find the self-assessment questionnaires and interview process to be enjoyable and beneficial as you explore the various ways that you have developed as a person, and your own process of becoming the unique individual you are today. You may make

personal discoveries. You may clarify the origins of certain realities in your life. You may learn more about your own adult development.

Alternatives

You will be informed as to the results of this study, and be provided any helpful suggestions or conclusions that may be drawn from the research.

Confidentiality

Any information collected during this study which could identify you will be kept strictly confidential. Research documents and audiotapes will only be seen by the investigator during this study, and for three years after the study is complete. Following the mandatory three years, all data will be destroyed. The information obtained in this study will be published in a dissertation.

Compensation

There will be no compensation for participating in this research.

Opportunity to Ask Questions

You may ask questions concerning this research and have those questions answered before agreeing to participate or during the study. Or, please feel free to call the investigator at any time, in his office (208) 282-3154, by cell (208) 251-0264, or at home (208) 232-7966. If you have questions concerning your rights as a research subject that have not been answered by the investigator, you may contact the University of Nebraska-Lincoln Institutional Review Board at telephone (402) 472-6965.

Freedom to Withdraw

Participation in this study is voluntary. You are free to decide not to participate in this study at any time without adversely affecting your relationship with the investigator, the University of Nebraska, or your own institution of higher education.

Consent, Right to Receive a Copy

You are voluntarily making a decision whether or not to participate in this research study. Your signature certifies that you have decided to participate having read and understood the information presented. You will be given a copy of this consent form to keep.

Signature of Respondent

_____ Signature of Respondent	_____ Date
Names and phone numbers of investigator(s)	
Jim Fullerton, MPA, Principal Investigator Office (208) 282-3154 Cell (208) 251-0264	Home (208) 232-7966
John DeFrain, Ph.D., Secondary Investigator	Office (402) 472-1659

Appendix L

Developmental Advising Inventory

Foundation for a Student Development Curriculum

Developmental Advising Inventory

Foundation for a Student Development Curriculum

The DAI contains 15 self-assessment questions within each of nine developmental categories (Intellectual, Life Planning, Social, Physical, Emotional, Sexual, Cultural, Spiritual, & Political) for a total of 135 questions. The following identified questions are presented by DAI as a possible “Foundation for a Student Development Curriculum.” The description in parentheses () following each category and question is taken from the *DAI Advisor’s Guide* (Dickson & Thayer, 1993, pp. 43-47).

INTELLECTUAL (thinking skills)

- 2. I examine assumptions critically before drawing conclusions (assumptions)
 - 5. I separate facts from opinions when evaluating information (facts – opinions)
 - 7. I make successful decisions based on what my heart tells me (intuition)
 - 9. I analyze difficult situations by reducing them to manageable parts (complexity)
 - 10. I focus on the basic issues in ambiguous and uncertain situations (ambiguity)
 - 14. I search for creative ways to solve problems (solutions)
- (6 questions on thinking skills)

EMOTIONAL (expressing emotions)

- 61. I express compassion easily (compassion)
 - 62. I say “No” to requests from friends without feeling guilty (guilt)
 - 65. I express affection appropriately and often (joy & affection)
 - 70. I express anger constructively (anger)
 - 71. I express my feelings after considering the impact on myself and others (sensitivity)
- (5 questions on expressing emotions)

CULTURAL (tolerance)

- 91. I promote sensitivity and equality among different religions (religious differences)
 - 93. I encourage involvement in ethnic activities (ethnic involvement)
 - 94. I have experienced the feeling of being a minority (minority feelings)
 - 95. I have close friends of different cultures or minority backgrounds (cross-cultural friends)
 - 96. I accept people with different sexual preferences (homophobia)
 - 97. I have attended a party or meeting where I was a minority (cultural initiative)
 - 98. I do not stereotype others because of race or ethnic origin (stereotyping)
 - 100. I seek experiences which help me understand people from other cultures (cultural openness)
 - 101. I challenge ethnic or religious stereotyping by my friends and others (challenging bigotry)
 - 105. I seek experiences which support my ethnic or cultural identity (cultural identity)
- (10 questions on tolerance)

SPIRITUAL (values development)

- 106. I often take time for spiritual reflection (spiritual reflection)
 - 108. I regularly take time to appreciate the beauty around me (aesthetics & beauty)
 - 111. I have thoughtfully evaluated theories of creation and evolution (creation & evolution)
 - 112. I am actively involved in discovering the meaning of life (meaning in life)
 - 115. I am comfortable with my beliefs on life, death, and life after death (life and death)
 - 116. I thoughtfully reflect on the significance of daily events in my life (present & future)
 - 120. I live according to my beliefs about the existence of a Supreme Being (Supreme Being)
- (7 questions on values development)

POLITICAL (learning the system)

- 123. I have read the statement of “Student Rights and Responsibilities.” (student rights)
 - 125. I discuss major Supreme Court decisions with my friends. (Supreme Court)
 - 127. I am resourceful and diplomatic when dealing with bureaucracies. (bureaucracies)
 - 128. I know the names of my legislators and student government president. (leaders & government)
 - 129. I watch or read the news on a daily basis. (current events)
 - 130. I question whether media presentations are biased or inaccurate (new media)
 - 131. I understand the values and beliefs of different political parties ([political parties)
 - 132. I use opposing arguments to improve my own views (opposing arguments)
 - 133. I am knowledgeable about basic civil and criminal laws and procedures (law)
 - 135. I attend debates, panels, or speeches on current social issues (information sources)
- (10 questions on learning the political system)

POLITICAL (leadership & service)

- 121. I vote in local, state, and national elections (voting)
 - 122. I try to make an impact in solving campus or community problems (community problems)
 - 124. I assist people who are poor, disabled, and aged (unempowered people)
 - 126. I seek opportunities to become an effective leader (leadership options)
 - 134. I take action on political issues that are local, national, or international (political choices)
- (5 questions on political leadership & service)

(43 total questions)

Appendix M

Interview Questions for Spring 2007 Transformative Learning Research Project

Interview Questions for Spring 2007 Transformative Learning Research Project

At the beginning of this semester you signed an agreement to participate in a research study of transformative learning and its impact on college student development. This involves completing some written self-assessment questionnaires and this structured one hour long interview. Today I will ask some open-ended questions and you will have the liberty to explore the topic in your responses. There are not right or wrong answers to these questions. I will not be judgmental about your responses. Please describe your responses the best way you can. Do you still agree to participate? __yes/no____

Your name will be kept confidential and will not be included in the study. To identify you in this interview, please say the initials of your first and last name_____

What is your age? _____ Class standing?_____

Major?_____ Career aspirations?_____

- 1) Why don't you start out with whatever stands out for you about the semester?
- 2) Do you now see yourself and the world around you in different ways than before? If so, in what ways?
- 3) Can you describe any new ways of how you think or act?
- 4) Have you experienced any self-examination, or have you critically examined your assumptions about your values?
- 5) Have you experienced any self-examination, or have you critically examined your assumptions about your knowledge?
- 6) Have you experienced any self-examination, or have you critically examined your assumptions about your identity?
- 7) Would you say that you have experienced any disorientation, disequilibrium, or disruption in your values, knowledge, or identity? If so, how?
- 8) If so, would you characterize these changes as incremental, or as a fundamental change in form and structure? How so?
- 9) Do you believe that you are now experiencing views that are different than you used to? If so, in what ways?
- 10) Is there anything else you'd like to say about what stands out for you about the semester?

THANK YOU for your participation in this study! Again, your responses will be kept confidential. I will make the completed study available to you when it is done.